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FIFTY CENTS

Textile Ind...es

Formerly "COTTON"

University Microfilms
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4

APRIL, 1957

KNITTING SECTION 157-192

Special 36-page section with a complete preview of the Knitting Show plus three exclusive features on knitting mill practices which are saving money

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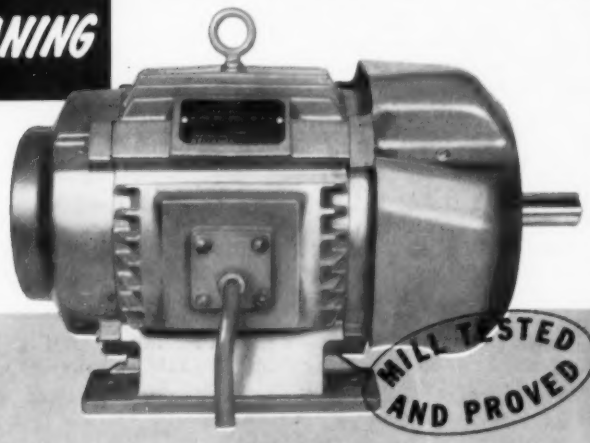
NO MORE MOTOR CLEANING

The *new* Reliance Lint-Proof Textile Motor is totally enclosed, positively eliminating lint-clogging. Lint-filled air cannot penetrate the sealed motor housing, and the high velocity cooling fan blasts lint off the outside of the motor.

It will pay you to try these new textile motors and see how they cut operating costs by eliminating motor cleaning.

Now available—1-20 hp. general purpose, air-cooled textile motor for application on spinning, roving, drawing, and twisting frames . . . and on cards, openers, pickers, and other textile machines.

B-1548-A



IT'S LINT-PROOF

RELIANCE Totally-Protected MOTORS

RELIANCE ELECTRIC AND ENGINEERING CO.

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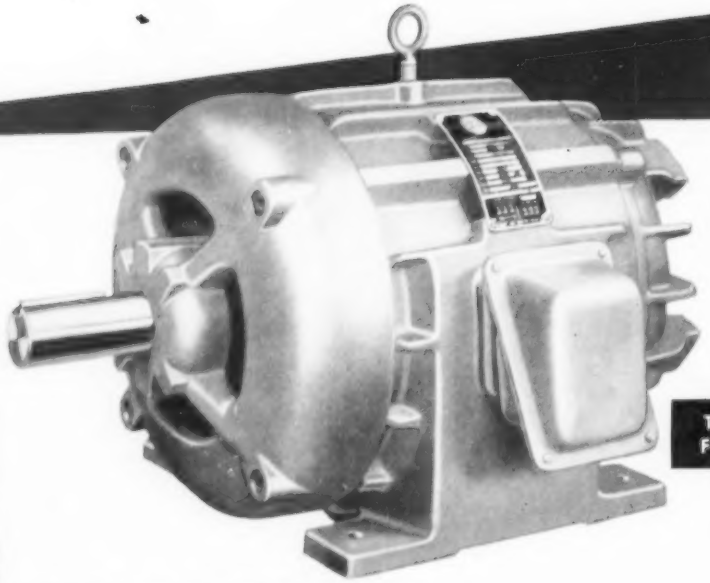
Canadian Division: Welland, Ontario



Type "DIL" Totally-Enclosed, Fan-Cooled Textile Mill Motor

new DIEHL streamlined design

Puts more features in less space

Here's a new textile mill motor which has the efficiency, performance characteristics and service factor of an open-type motor with the added advantages of totally-enclosed, fan-cooled construction . . . *yet it's no larger in size than a standard open-type motor (see Fig. A).*

Inside and out, the DIEHL Type "DIL" Motor is designed and built for top performance, maximum protection, long life, ease of installation and ease of maintenance in textile service. Note the heavy duty drive end bearing design, Fig. B, and the versatility in making lead connections, Fig. C.

The Type "DIL" Motor is adaptable to all types of textile machinery and, conforming to NEMA frame sizes and mounting dimensions, may readily be installed beneath spinning and twisting frames.

Write today for full details about this outstanding new development.

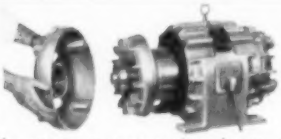


Fig. A

Note the compact space-saving design of fan blade and end-cover, the fan blade serving as part of the motor enclosure. Rotor is partially withdrawn to show the unitized construction of rotor and blade which assures maximum transfer of heat to the ventilating system.

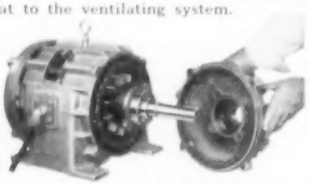


Fig. B

Another important new design feature which helps make this motor the outstanding choice for purchasers of textile mill motors is the locked-in, pre-lubricated heavy duty ball bearing, on the drive end, which assures maximum bearing life.

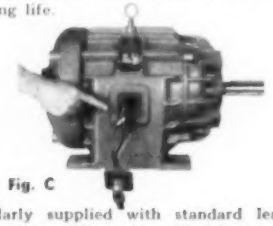


Fig. C

Regularly supplied with standard leads and terminal box. Obtainable with 5-foot type "ST" vinyl-covered cable, oil and watertight fittings, and knife-type disconnectors on the motor terminal leads for convenience in servicing, at slight additional cost.

DIEHL MANUFACTURING COMPANY

Electrical Division of THE SINGER MANUFACTURING COMPANY

Finderne Plant, SOMERVILLE, N. J.

Diehl

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[ ] Have your representative call

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CITY_____ ZONE_____ STATE_____

From Tip to Butt . . .

A Draper bobbin incorporates all of the features found to be desirable in a quality bobbin;

1. Finest raw materials
2. Engineering . . . by men who *know* bobbin requirements
3. Uniformity in manufacture
4. Proven finishes

Each Draper bobbin is a custom-made example of precision production wherein minimum tolerances, consistent with a practical woodworking operation, are maintained.

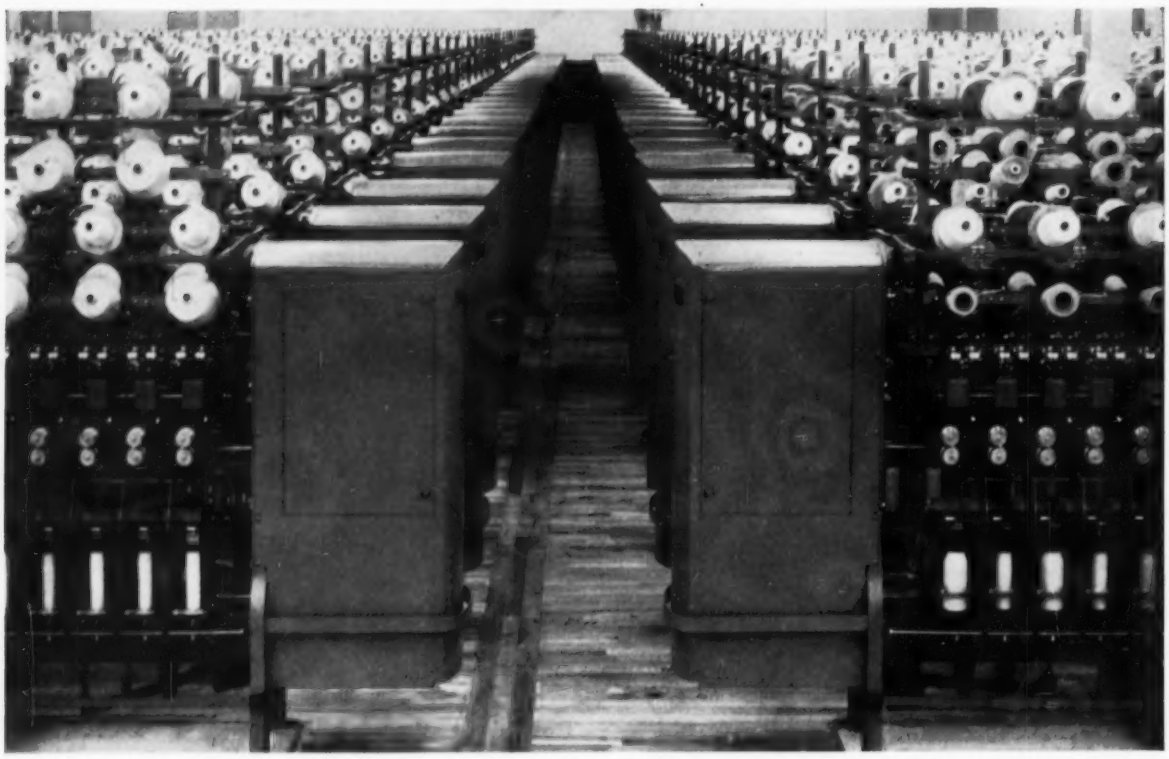
The cost of an individual bobbin is small, but annual mill expense for bobbins is considerable. Specify the best for *both quality and economy* . . . a Draper bobbin.

DRAPER CORPORATION

Hopedale, Mass. *Atlanta, Ga.* *Greensboro, N. C.* *Spartanburg, S. C.*

What Fletcher recommends to assure dependable performance

● *Based on its years of experience and its test of various brands and types of lubricants, Fletcher Works, Inc., Philadelphia, has long recommended Texaco to assure the dependable field performance of its equipment.*



Texaco Spindura Oil, for example, is recommended for the famous Fletcher Master Duplex Double-Twister. *Texaco Spindura Oil* has high oxidation resistance, does not thicken or form gum, does not atomize or fog. This means you can run heavy packages at full speed and be sure of cleaner yarn.

For cam surfaces, jacks, slide and connecting rods on its narrow fabric looms, Fletcher recommends *Texaco Stazon* because it *stays* on the lubricated parts, does not splatter, creep or drip.

Fletcher Works is just one of the leading textile machinery manufacturers who use and recommend Texaco. Let a Texaco Lubrication Engineer help you get better performance from *all* your equipment. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

☆ ☆ ☆

The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

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NBP BPA

Textile Industries

Formerly "COTTON"

Vol. 121, No. 4
April, 1957

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Limited core storage no problem for

GEORGIA RUG MILL

Textile Paper Products, with regular deliveries rain or shine, serves as their "warehouse"

TWICE A WEEK cores are delivered to Georgia Rug Mill's Summerville, Ga., plant by Textile Paper Products' own carrier fleet. Mill space, ordinarily required for bulky core storage, is thus freed for productive use.

Increased space efficiency and lower handling costs are advantages enjoyed by mills with whom we have worked out regularly scheduled deliveries. Cores arrive in perfect condition, undamaged by exposure. Delivery by our fleet eliminates transfers, which often are necessary by public carrier. From our three strategically located plants any mill in the Southeast and Southwest is an "overnight" destination. Let us serve you.

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Manufacturers of better Tubes, Cores, Boards, Car Lining and Beaming Paper

Home Office Cedartown, Ga.
Plants in Cedartown, Crossett, Ark., Bogalusa, La.

Shorts and Remnants

► Old S & R's readers this month are lucky — mighty lucky. Where else would April showers include little known facts of history; a welcome to good old Atlantic City and another Knitting Show (if we don't get mixed up and go to Phila. instead); aphorisms by Karl Marx (not the one you think); poetry and pictures; advice on textiles, poultry and swine raising; champagne tasting, and other enlightenment of dubious value?

► Where else, for example, would you be likely to hear the inside story of how Gen. Robert E. Lee with 25,000 brave Rebs finally got tired of chasing Ulysses S. Grant and his 100,000 odd Yanks all over Virginia during the War Between the States in 1865 and accepted Grant's surrender as shown below at Appomattox Court

House April 9, 1865? Who says the South didn't win the war? For further proof, look at the Confederate money — it's worth not only just as much but *more* than it was over 90 years ago. What other dollar can make this claim?

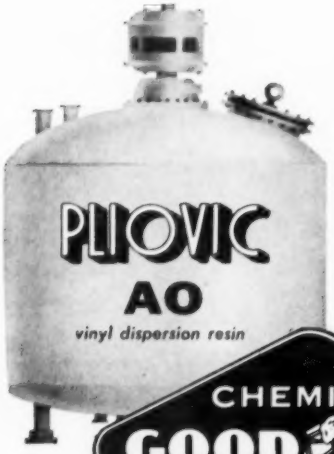
► Getting back to TI and April, once again knitters (outerwear, underwear, hosiery and all) meet by the shores of the blue Atlantic Ocean at Atlantic City to view the sundry offerings of suppliers at the 1957 Knitting Arts Exhibition April 29-May 3.

TI is proud of its Knitting Section

(Continued on page 8)

Photo courtesy Sawyer, Tower, Inc., Coated Fabrics Division, Watertown, Mass.

Clue to covering the bases best



Fast-moving combination in today's protective-covering field is vinyl-coated nylon. Light weight–high strength–flexibility–impermeability –resistance to oils and chemicals–and excellent weatherability–are the reasons. This new type of tarp is finding wide use on everything from small skiffs to truck trailers to baseball fields.

Clue to coating nylon successfully lies not only in selection of right materials, but in their proper application. One leading manufacturer builds up to the correct coating thickness with several light applications, individually fused, under closely controlled conditions. For that reason, precise control of the viscosity of the coating is essential–and that's why he uses PLIOVIC AO.

PLIOVIC AO is vinyl copolymer resin for dispersion. It exhibits high thixotropy for (1) effective control of viscosity, when used as a modifying resin and (2) good "holdout," when used as the base resin. PLIOVIC AO fuses at low temperatures for longer product life through a shorter heat history. And it tolerates a wide range and high percentage of extender plasticizers giving low compounding costs.

For full details plus the latest *Tech Book Bulletins*, write to: Goodyear, Chemical Division, Dept. D-9439, Akron 16, Ohio

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High Polymer Resins, Rubbers, Latices and Related Chemicals for the Process Industries

LOST . . . one day's production

while this roll was being changed

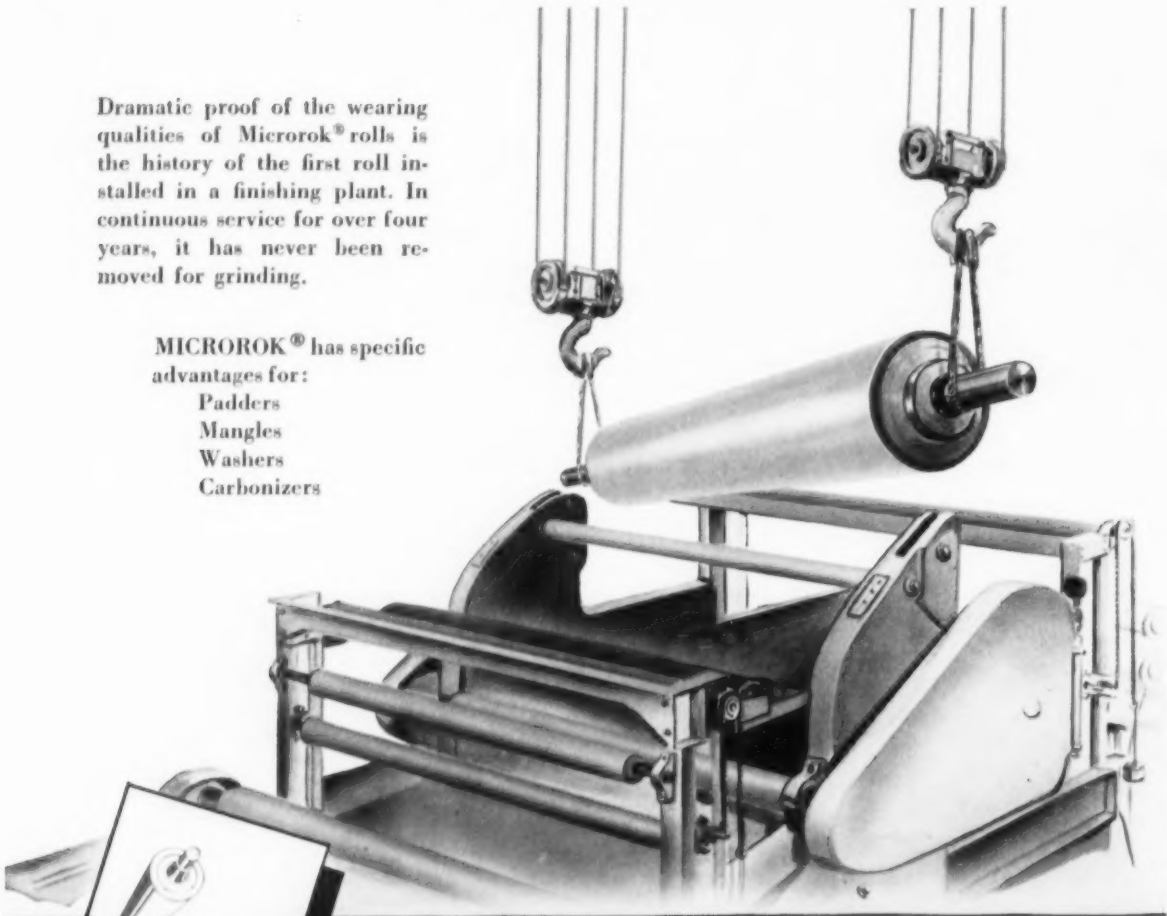
Although the actual grinding of bottom squeeze rolls is not in itself too expensive, the down-time required for the long and difficult job of removing these heavy, hard-to-get-at rolls can result in a serious loss of production.

Alert textile finishers, aware of this problem, are turning more and more to wear-resistant MICROROK® covered rolls by Stowe-Woodward, Inc. For complete information on MICROROK® rolls and their many advantages, contact your Stowe-Woodward Sales Engineer or write for Bulletin 501.

Dramatic proof of the wearing qualities of Microrok® rolls is the history of the first roll installed in a finishing plant. In continuous service for over four years, it has never been removed for grinding.

MICROROK® has specific advantages for:

- Padders
- Mangles
- Washers
- Carbonizers



S-W INC.

STOWE-WOODWARD, Inc.

Craftsmen in rubber rolls

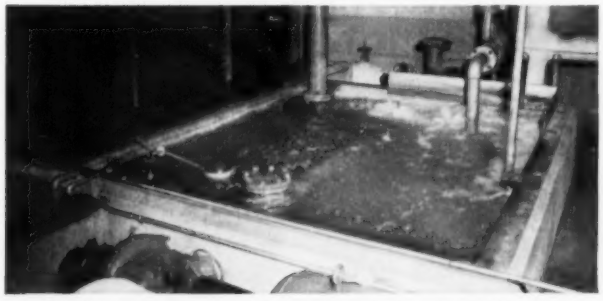
NEENAH, WISCONSIN • NEWTON 64, MASS. • GRIFFIN, GEORGIA

Why Owens-Corning Fiberglas chose

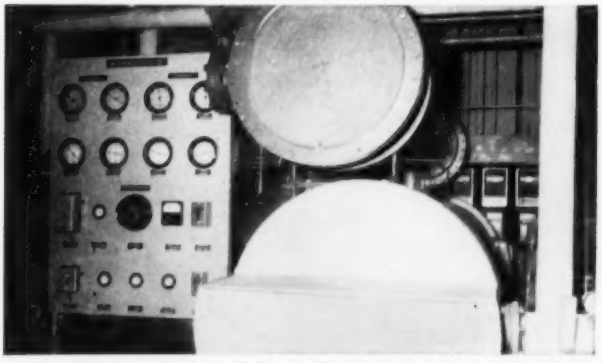
AMCO CENTRAL STATION AIR CONDITIONING

at its Huntingdon, Pa. Plant

Air distribution ducts and zone control atomizers in twisting room at Owens-Corning Fiberglas, Huntingdon, Pa. Widely spaced grille bars and snap-on latches allow quick, easy cleaning and maintenance.



Chilled water reservoir receives excess water from air washers, then recirculates water through chillers as needed.



Refrigeration equipment (chiller at bottom, condenser at top) with indicator and control panel designed and installed by AMCO.

If you want the facts about textile mill air conditioning — central station, unit dry-duct or ductless evaporative cooling — with the advantages and limitations of each system detailed, write for Amco's booklet "Air Conditioning for the Textile Industry". Or better still, ask Amco to recommend the system best suited to your needs. No obligation.

CLOSE-CONTROL HUMIDIFICATION

Owens-Corning, to assure greater operating efficiency throughout its mill, installed an Amco dual (split) system. This system calls for a central station unit augmented by room atomizers which permit the different manufacturing areas to be controlled *independently*, at any point, between 40% and 65% relative humidity.

CLEAN, CONDITIONED AIR

Fresh and recirculated air is thoroughly cleaned and conditioned with the right amount of moisture before distribution by the duct system. Room atomizers raise the moisture content to the level desired for each room, thus assuring ideal conditions for the particular manufacturing process.

CONSTANT YEAR-ROUND TEMPERATURE

Air passed through chilled water spray helps to maintain a year-round 78° F temperature. A total of 550 tons refrigeration capacity keeps work areas independent of outside weather.

ECONOMICAL OPERATION

A washer bypass takes care of below-maximum heat loads, saving on steam costs. This Amco system also uses steam coils to heat air for supplementary warmth when the weather is extremely cold or when machinery loads are very light.

Exterior view of central station apparatus house at Owens-Corning Fiberglas Corp.

AMERICAN MOISTENING COMPANY, Cleveland, N. C. *Branches:* Atlanta • Boston • Camden • Providence • Toronto

"Bright idea"

Your company name and message show up better on brighter, smoother H&D Corabrite corrugated boxes. Improving product identification is always a bright idea. Better see H&D.

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Subsidiary of West Virginia Pulp and Paper Company
AUTHORITY ON PACKAGING • SANDUSKY, OHIO
14 FACTORIES • 42 SALES OFFICES

Shorts and Remnants

(Continued from page 4)

— both editorial and ad pages. A check of requests from current issues and mail from knitting mills shows active inquiries from 21 states, from Canada, Philippines, Italy, Peru, Venezuela, Argentina, etc. Requests involved knitting machines, needle oil, sewing machines, yarns and fibers, factory equipment, advertising, and financial services. Keep them coming.

In the meantime, maybe you would like extra copies of "Straightening Full-Fashioned Needles" which was complimented by Textile Machine Works who sent a copy also of their "Straightening Spring Beard Needles;" by **W. J. St. Onge, Jr.,** The Torrington Co., who says " . . . A complete and informative presentation;" by **George A. Parsons,** V. P. Laconia Cooper Co., Inc., who says, ". . . graphic in its simplicity . . .".

Before we leave our knitting friends, **H. Leon Bush,** Spring City (Pa.) Knitting Co., writes to find out how to join the Textile Quality Control Association as reported in Jan. TI. We suggested he write **Dent Mangum** at N. C. State College for further details.

Also before leaving, thanks to *Textiles Panamericanos* for the invitation to join them in a cup of cafe tinto at the Knitting Show. We might do that.

► **Mr. Huffman,** of Huffman Mfg. Co., Phila., wants to locate "Irving Kabor" who had an ad or item in TI several months ago. Cross our hearts, we can't recall or find it.

► **J. W. Shaven,** Pres. Coats & Clark, Inc. (right), congratulates prize winner Ralph H. Michaels, Kirby Block Co. (center), while R. R. Volz, V.P. Coats & Clark, looks on. Mr. Michaels

(Continued on page 12)

MORE THAN 2½ MILLION SPINDLES NOW EQUIPPED WITH ROBERTS HIGH DRAFT

ROBERTS SPINNING NEWS

PUBLISHED BY ROBERTS COMPANY SANFORD, NORTH CAROLINA

VOL. 12 SANFORD, NORTH CAROLINA NO. 2

MOST BALL BEARINGS USED IN ROBERTS SPINNING FRAMES

The use of ball bearings at many key points of a spinning frame not heretofore found possible has been accomplished in the Roberts M-1 frames.

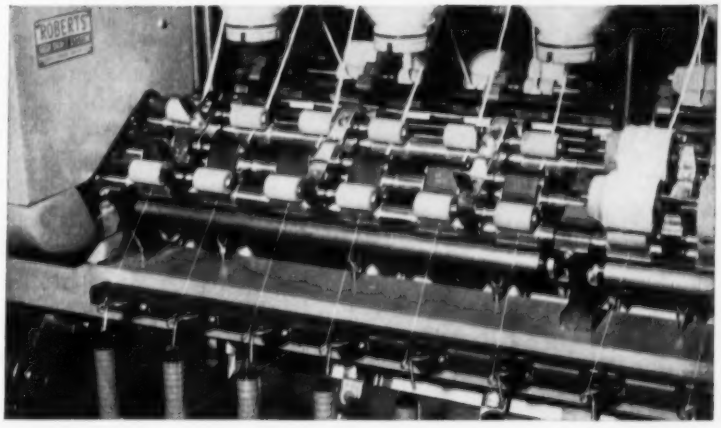
This liberal use of ball bearings results in a spinning frame with smoother performance, greater dependability and freedom from lubrication. The need to replace wearing parts and future maintenance expense is eliminated.

The key points in Roberts Spinning Frames now ball bearing equipped are:

lifting rod rolls
wave shafts
cross shafts
builder motion pivots
crown gear swing arms
complete lay trains
intermediate gears
front roll gears
upright shafts
jack shafts
cylinder bearings
and, of course, in
spindles
tape tension pulleys
top roll suspension system

The long felt desire by practical mill men to apply sealed ball bearings to spinning has been successfully accomplished in the Roberts M-1 Spinning Frames.

ROBERTS TOP ROLL SUSPENSION USES BALL BEARINGS ALL 3 LINES

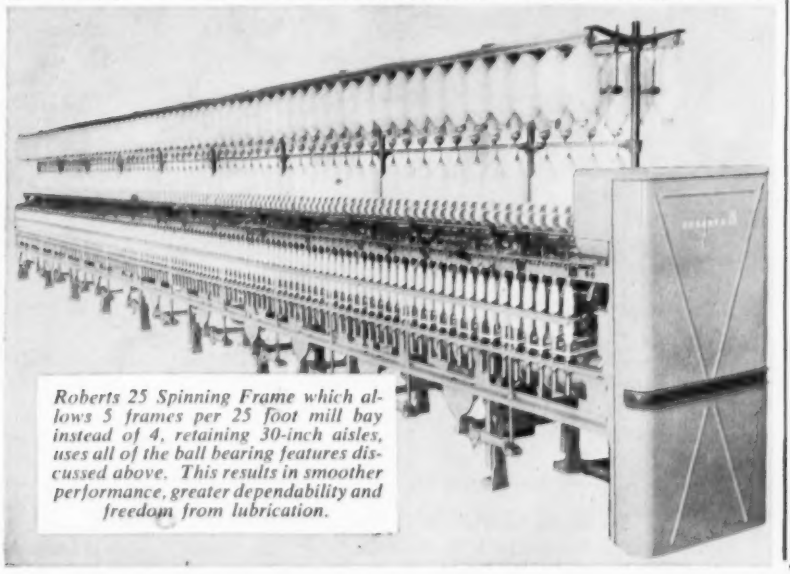


A top roll suspension system which uses double-row ball bearings in front, middle and back lines and incorporates many other important design advantages has been announced by Roberts Company

BALL BEARING SPINDLES FIND WIDE ACCEPTANCE

Since early 1956 when Roberts Ball Bearing Spindles were first introduced, several hundred thousand have been installed in spinning frames.

Mill men report their performance exceptionally dependable, even at the highest operating speeds.



Roberts 25 Spinning Frame which allows 5 frames per 25 foot mill bay instead of 4, retaining 30-inch aisles, uses all of the ball bearing features discussed above. This results in smoother performance, greater dependability and freedom from lubrication.

Adaptable to several drafting systems as well as its own, the Roberts Top Roll Suspension embodies all the following features, many not found in other arrangements:

1. Cots are buffed on standard equipment, without attachments.
2. Cots revolve together making lap removal simpler.
3. Full length revolving clearers are used.
4. Front and back rolls are interchangeable making sequence buffing possible.
5. All three lines of rolls have double-row ball bearings.
6. Has controlled self-alignment.
7. Cots have ½" hole diameter.
8. 2-piece labyrinth seal is protected from lint entrance and roll picker damage.
9. Double row bearing raceways are ground directly into ½" shafts.
10. Bearings grease-packed for life.
11. Conventional dead-weighting or new spring weighting optional.

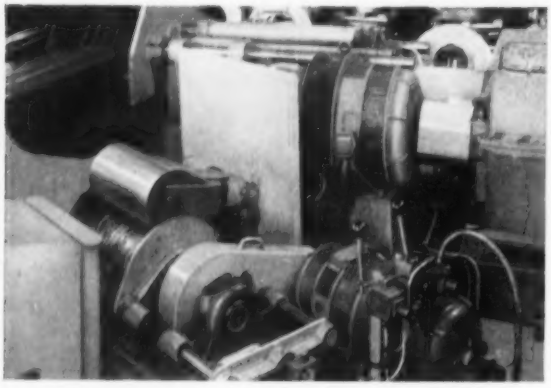
An alternative arrangement also available employs a ball bearing top roll and special suspension on the front line only with Roberts Cap Bars and solid top rolls on middle and back top rolls.

Roberts also continues to offer its No-Oil Cap Bar and Saddle system for all three lines, now installed in more than 2½ million spindles.

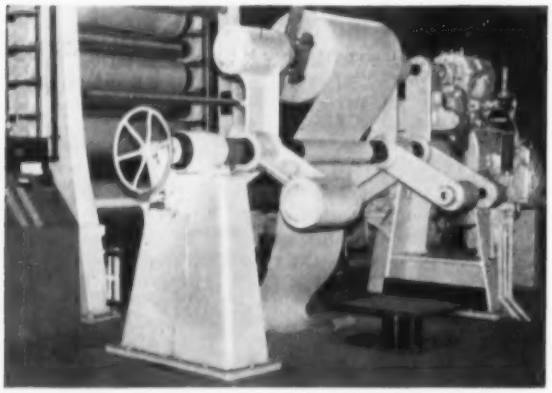
Tension Control Problems?

Dynamatic's Long Experience in Solving Industrial Windup and Unwind Problems will be Valuable to You

DYNAMATIC®



Metal slitter powered by Dynamatic Drives. Adjustable speed liquid cooled coupling used as main drive; Ajusto-Spede® Drives, with constant tension control, wind up the metal strips.



Completely Dynamatic driven paper super-calender. Adjustable speed liquid cooled couplings with Eddy-Current brakes drive the calender rolls and center rewinder. Dynamatic liquid cooled brake provides center unwind hold-back. Co-ordinated controls provide for wide-range adjustment of speed and tension.

Dynamatic Eddy-Current Drives with tension controls are used extensively in the fields of paper, rubber, textiles, ferrous and non-ferrous metals, plastics, and printing.

Combined with associated controls, Dynamatic Eddy-Current Drives provide automatic constant tension as the roll diameter changes on center rewinds and unwinds. Constant tension is maintained over a wide range of material delivery speeds without the use of dancer or follower rolls. Controls may be adjusted for tapered tension to increase or decrease tension automatically as the roll changes diameter.

Multi-range tension or tension adjustment over a wide range is easily accomplished at the operator's station to accommodate materials of various thicknesses or widths. Control modifications are available to provide for inertia compensation and other individual requirements. Dynamatic engineers are available for consultation on your problems.

Bulletins giving detailed information on Dynamatic Tension Control will be sent free at your request.

EATON

EATON

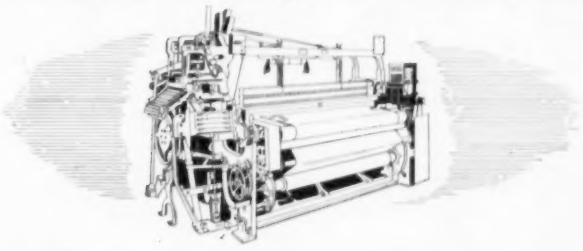
DYNAMATIC DIVISION

MANUFACTURING COMPANY

3307 FOURTEENTH AVENUE · KENOSHA, WISCONSIN

BE SURE

you get the TOP PERFORMANCE that's built into every C&K LOOM



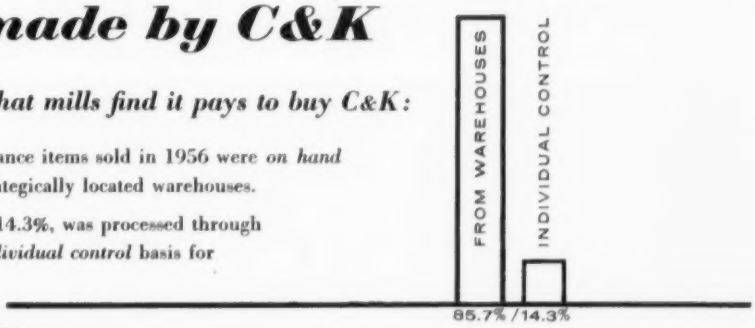
BE SURE

you use only LOOM PARTS made by C&K

...and here's proof that mills find it pays to buy C&K:

85.7% of all maintenance items sold in 1956 were *on hand* and *shipped* from strategically located warehouses.

The balance, a mere 14.3%, was processed through C&K shops on an *individual control* basis for prompt shipment.



CROMPTON & KNOWLES CORPORATION C&K WORCESTER, MASS. U.S.A.

CROMPTON & KNOWLES *Corporation*

MANUFACTURER OF

THE WORLD'S LONGEST LINE OF AUTOMATIC BOX LOOMS

•

WORCESTER 1, MASSACHUSETTS, U. S. A.

CHARLOTTE, N. C. • PHILADELPHIA, PA. • ALLENTOWN, PA.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

Crompton & Knowles of Canada Ltd., Montreal, Quebec

LIFT TRUCK EQUIPPED WITH BALE-GRAB REDUCES HANDLING COSTS FOR TEXTILE MILL (AS MUCH AS 90% IN HANDLING STARCH)

Unloading bales from boxcar (2 at a time) with Bale-Grab clamp.

Steep ramp easily negotiated with two 500-lb. bales.

Stacking bales 2 tiers high in a boxcar.

CHESTER, S. C.—Gayle plant of Spring Cotton Mills reports the mechanization of many handling operations formerly performed manually, with marked reduction in overall costs. Using a Hyster 2000-lb. capacity lift truck and a Hyster Industrial Tractor, a wide diversity of materials are handled efficiently, such as cotton bales, textile waste, starch, and rolls of cloth.

The Hyster® Lift Truck is equipped with Free-Lift Uprights which make possible elevation of the load without raising the lift truck uprights . . . thus permitting loaded trucks to pass under low doorways and ceilings, and into boxcars. The truck also is equipped with a Load-Grab® Clamp which picks up bales of cotton and waste (or rolls) with a side-squeezing action. This combination of equipment performs many handling jobs which, according to company officials, is materially reducing overall handling costs.

For example, handling costs on starch alone are 1/10 of what they formerly were. Now, 56,700 pounds of starch are unloaded, hauled and placed in storage by one man and a lift truck in 1½ hours.

Your Hyster Dealer may help you achieve similar cost reductions, because it is his business to keep up with materials handling progress in textile mills. Call him today.

Quickly converted to regular fork operations, Hyster lift truck easily moves a 2000-lb. load of starch to storage.

Free-Lift uprights are essential for high stacking in low-ceiling warehouses. Load-Grab clamp is handling rolls of wrapped cloth.

Call your Hyster Dealer today. He is listed in your telephone directory under "Trucks-Industrial"

HYSTER COMPANY

Hyster Industrial Trucks Increase Profits for Textile Mills

2902-57 N. E. Clackamas . . Portland 8, Oregon
1010-57 Myers Street . . . . . Danville, Illinois
Hyster N.V. . . . . Nijmegen, The Netherlands
FACTORIES: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands

Shorts and Remnants

(Continued from page 8)

guessed closest to how many scoops of teeth there were in a huge C & C zipper tape at a "Champagne Tasting Party." What won't folks think of next?

► Orchids to the Arrow Shirt ad headed "Give Your Beau an Arrow." Orchids also to **Saco-Lowell Shops** on their 1956 Annual Report, presenting company operations, activities, plants, pictorially for stockholders — one of the most interesting S&R has seen.

► **A. McFarland** (left), V.P. Corn

Products Refining Co., presents 35-year gold watch to **L. M. Kelley,** Memphis, while **James M. Coe,** Sou. Div. Mgr., looks on.

► You never know what business we are in. A chemical concern writes of a new addition to their staff, stating he was formerly with Gross Egg Co. Another chemical item states that "Piperazine was found to be effective as an anthelmintic in the treatment of round worms in poultry and swine. . ."

More to the point on the animal angle, a German renewal to TI labels us as "COTTON (quarterly statistical Bull & Monthly Review of the World Situation)." And our good subscriber, **Henry Protzman** of Pfeiffer Brewing Co. (Weaving Dept.?), has moved to Providence, R. I.

And a letter from Alcoa, Tenn., asks if we still publish the "good work on the Bible . . . for the home circle . . . a wonderful book and a good one to read."

►From Dono Emcabo & Cia, Buenos Aires, comes "se complacen en hacerles Lleger los mejores augurios para el ano se inicia." The same to you, we say.

► If you need a computer that will even figure how deep is the well,

WHY TAKE THIS RISK?

Each time you use old fashioned flammable cleaning solvents . . .

For EVERY CLEANING JOB — with Absolute Safety and Low Cost

(Reg. U.S. Pat. Off.) IMMUNOL

Proven by 11 Years of Continuous Use in Leading Mills—Everywhere

SAFE TO SKIN

Workers can wash their hands in IMMUNOL without any after-effect.

IMMUNIZE AGAINST IRRITATION

SAFE TO STORE

Less storage space required. Completely safe in any form.

IMMUNIZE AGAINST TOXICITY

SAFE TO METAL

Leaves no oily residue and prevents rust.

IMMUNIZE AGAINST RUST

IMMUNOL is very easy to use. It dissolves instantly in any kind of water at room temperature and can then be applied cold or hot, by wiping, brushing, or spraying and then allowed to dry or blown dry. When mixed to proper proportion and ready to use, IMMUNOL costs only 13¢ a gallon. IMMUNOL is used in many mills throughout the country because of its versatility, effectiveness as a cleaning agent, and obsolute safety features.

As a versatile cleaning solvent, IMMUNOL is a fast, effective general cleaner for mill equipment of all types. IMMUNOL removes dirt, soil, oil, grease, size, and mill film from any textile machine or equipment with complete safety to personnel, equipment, and fabric (providing the fabric is not affected by plain water).

IMMUNOL's safety features are outstanding. Use IMMUNOL in your plant and you eliminate fire hazards. It's so safe, you can hold a lighted match within inches of IMMUNOL in complete safety. No matter how long workers skin comes in contact with IMMUNOL, there's no danger of discomfort or irritation. IMMUNOL can be used safely and properly by the unskilled employee.

PRACTICAL FOR USE IN THESE OPERATIONS

Bleaching
Blending
Boarding
Carding
Circular Knitting
Cleaning
Combing
Dyeing
Drawing
Equipment
Finishing
Full Fashion
Inspection
Knitting
Maintenance
Opening
Packaging
Picking
Printing
Roving
Rust Proofing
Slashing
Spinning
Spooling
Throwing
Tricot
Tufting
Twisting
Warping
Weaving
Winding

A few of the outstanding qualities of IMMUNOL

- NON-FLAMMABLE
- NON-TOXIC
- ODORLESS
- MORE EFFECTIVE
- COSTS LESS
- NOT OILY
- DEGREASES PERFECTLY
- PREVENTS RUST

Test **IMMUNOL** *at our expense. Write for a free sample today.*

Fibrogard
(Reg. U.S. Pat. Off.)
ORIGINAL COLLOIDAL LUBRICANT

Outstanding stock lubricant for synthetic and natural fibres. Minimum quantities . . . prevents neps and balling . . . reduces fly . . . binds fibres without being tacky . . . Increases tensile strength of yarns.

HARRY MILLER CORP. HAMICO 4th & BRISTOL STREETS PHILADELPHIA 40, PA.

MANUFACTURERS OF: • GLYCOLA • ACTIVOL • POTENTOL • FIBREGARD • REVERSOL • FIRMTAL

HARRY MILLER CORP.

Original Products and Processes Since 1936

4th and BRISTOL STS., PHILA. 40, PA.

DAvenport 4-4000 *Service Representatives in Principal Cities*

BALANCED PERFORMANCE . . .

Precision balance plays a major role in the performance of National-Sterling Ring Travelers.

Increased spindle speeds make it imperative that every traveler you use be in perfect balance. The slightest deviation can generate enough friction to cause excessive wear and increase costly ends down. To protect you against such losses, National-Sterling offers quality-controlled travelers which are not only precision balanced but absolutely uniform in weight, dimensions, temper and finish. Result: travelers which consistently deliver more pounds of first class yarn . . . at higher speeds . . . with fewer ends down.

Find out now how National-Sterling Ring Travelers can cut *your* production costs. Write, wire or phone National Ring Traveler Company and Sterling Division, 354 Pine Street, Pawtucket, R. I., or Southern Office and Warehouse: P. O. Box 112, Gaffney, S. C.

NATIONAL *Sterling*
RING TRAVELERS

F. L. CHASE, JR., Pres. & Treas. L. E. TAYLOR, So. Mgr.

FOR SPINNING AND TWISTING ALL NATURAL AND SYNTHETIC FIBRES

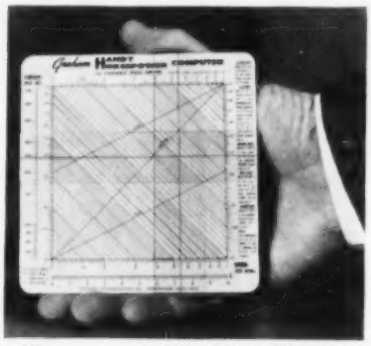
There's a NATIONAL man nearby!

T. H. BALLARD	F. S. BEACHAM	H. A. CARTER	D. C. CREECH	H. D. LANIER
112 N. 9th St.	P. O. Box 511	354 Pine St.	P. O. Box 5083	P. O. Box 421
Belmont, N. C.	Honea Path, S. C.	Pawtucket, R. I.	High Pt., N. C.	Shawmut, Ala.

Export Agent: A. M. ROMERO CORP., 350 Fifth Ave., N. Y. 1, N. Y.

Shorts and Remnants

write to Graham Transmissions, Inc., Menomonee, Wis., for the handy horsepower computer pictured below



with many-paged booklet telling how to operate same.

Quality Control in Knitting

"We would like to obtain a reprint of the article 'Knit Quality in The Half-Hose Mill' (Feb. '56) . . . "

J. G. L. CAULFIELD
Eastern Corp.
Bangor, Me.

Richard Skeene, Geo. W. Bollman & Co., Inc. (wool felt hats), Adamstown, Pa., remembers a table in TI with specifications and cost comparisons of synthetic fibers with wool and cotton.

Burton Agale, chemist, Chicago Printed String Co., and **F. A. Boden,** Chem. Engr., St. Clair Rubber Co., Marysville, Mich., both are interested in more specific data on "How To Select An Infrared Drying System" [Dec. '56].

Loom for Samples

". . . We have been asked by one of our principals to try to obtain the name of a loom manufacturer in the United States who makes a loom for making samples only. . ."

ROBERT L. WELLS
European Trading Corp.
New York, N. Y.

Dirtiest Package In World

". . . This is one of the most powerful things we have seen yet on this subject [pages 80-81 Jan. '57]."

BILL FOREMAN
National Cotton Council of Amer.
Memphis, Tenn.

Wants Mercerizing Range Control

"Interested as we are in full particulars regarding the Automatic Control and recorder for Caustic

how would YOU move a mountain of cotton?*

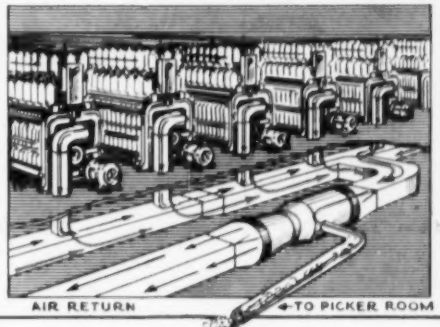
—THIS MODERN WAY→

OR THIS OLD-FASHIONED WAY

PNEUMAFIL® C.M.R.

(CENTRAL MATERIAL RECOVERY)

does it AUTOMATICALLY!



Copyright 1957 Pneumafil Corporation

FOR SPINNERS ONLY! Pneumafil CMR (Central Material Recovery) means:

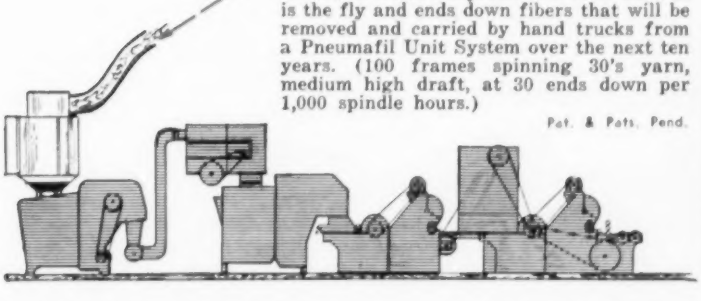
AUTOMATION—Fly and ends down fibers are continually and automatically delivered to the picker room (or any desired location) for reintroduction into process.

CMR means no time consuming frame to frame cleaning out of individual collector units and the moving of this material by old-fashioned hand truck methods.

PEAK EFFICIENCY—CMR operates at peak efficiency at all times! A constant air quantity and pressure is maintained at each spindle to assure: (1) maximum frame cleaning; (2) positive pick-up of ends; (3) minimum operating HP; (4) least deviation of temperature and humidity.

Collector units build up air resistance due to material collecting on screens. Because of this you have: (1) changes in air volume at spindle orifices; (2) changes in pressure at spindle orifices; (3) increased operating HP.

CMR is as essential in today's mill as the elevator was twenty years ago. Mills are now converting to CMR. If you have any other system in your mill, you should consider Pneumafil CMR, the best buy in mill modernization.



*This is what 800,000 lbs. of fluffy cotton looks like when compared to a 6 ft. man. It is the fly and ends down fibers that will be removed and carried by hand trucks from a Pneumafil Unit System over the next ten years. (100 frames spinning 30's yarn, medium high draft, at 30 ends down per 1,000 spindle hours.)

Pat. & Pats. Pend.

PNEUMAFIL CORPORATION

CHARLOTTE 8, NORTH CAROLINA

Atlanta, Ga., Needham Heights, Mass.

PNEUMAFIL

Booth

Originators of STRIP-O-MATIC*

CARD CLOTHING

SUPR-O-TAPE

THE FIRST AND ONLY SUCCESSFUL FABRIC TAPE FOR CONDENSERS

Two years of actual mill use testifies to these amazing facts:

- Longer Life
- Extra Strength
- Increase Production
- Improve Quality
- Surface Won't Crack
- No Oiling Needed
- Yarn Uniformity Improved
- No Stretch—Less Sag
- Keep Square Edges
- Retain Full Width
- No Breaking In
- Permit Wider Range of Counts
- Fewer Ends Down
- Easily Cleaned
- Endless or Continuous
- Belt Hooks Hold
- Not Affected by Emulsions

STRIP-O-MATIC CARD CLOTHING *IN TWO TYPES*
CONVENTIONAL CARD CLOTHING
QUALITY AND SERVICE FOR 65 YEARS

*Patented

BENJAMIN BOOTH COMPANY

ALLEGHENY & JANNEY STS., PHILA., PA.

Booth

Shorts and Remnants

Soda concentration on Mercerizing ranges (Dec. '55) . . . please arrange to send the same, together with the name of the manufacturing firm and their agents in India. . ."

D. B. KATRAK
Gen. Mgr.
Khatau Mills
Bombay, India

Thanks to TI—Ultrasonics

". . . Thanks to good old TI, our sales department has enough leads in the textile field to make an intelligent assessment of the current market for ultrasonic equipment in this industry. . ."

PAUL M. PLATZMAN
Gen. Sales Mgr.
Acoustica Associates, Inc.
Glenwood Landing, L. I., N. Y.

Wants Bobbin, Quill Strippers

". . . Please send us promptly further details and prices of the bobbin stripping machine and if there exists a quill stripping machine we would like to know further details and prices of same. . ."

LA ESTRELLA
Safie Hnos & Co.
San Salvador, C.A.

Southern Blanket Finishers, Note

"We are desirous of contacting a Dyeing and Finishing Plant, preferably located in the South, capable of dyeing, napping and finishing blanket material as per enclosed sample. Finished width of the fabric would be 72 inches and the fibre content would be a combination of rayon and nylon filling with cotton warp."

MICHAEL SCHAPIRO
Pur. Agt.
Bobrich Products Corp.
Beacon, New York

Wants EQ-53 for Mothproofing Woolens

". . . Kindly inform us where we may obtain the chemical EQ-53 (Feb. '57) . . ."

QUENTIN BRESLIN
Pres. L&L Rigby Shrinkers, Inc.
New York, N. Y.

Desires Bright Career

"I should be thankful if you would secure me a training field as an apprentice in any of your textile mills in cotton spinning. . . . I have erected about 40,000 spindles U.K. made in

Valika Textile Mills, Karachi, and thus have attained fair experience. Being desirous of bright career, I am seeking for better training fields. . . "

SYED MOHAMED MEHDI
c/o House No. 7/28
'C' Area, Liaquatabad (L. K.)
Karachi 5, West Pakistan

Wants Oiling Dolly

". . . We would appreciate knowing the name of the manufacturers of this oiling dolly (Feb. '57)"

ALBERT E. BONTE
Treas.
Bonte Spinning Co. Inc.
Woonsocket, R. I.

T. I. News

" . . . I particularly look forward to your Textile Industry News each month. . . . "

GEORGE C. FRYER
Adv. Mgr.
Pneumafil Corp.
Charlotte, N. C.

Wants Thread Polishing Equipment

" . . . We are considering the possibility of enlarging our cotton spinning mill with a section devoted to the finishing of sewing thread. For that reason we would appreciate receiving from you information concerning different manufacturers of brushing machines for applying hot wax finish onto the threads and later polishing and glazing them. . . "

ISAAC ZABALZA
Cia Gen. de Bienes Raices y Muebles
Buenos Aires, Argentina, S.A.

Enjoys T.I. In Canada

"Kindly send us ten reprints of 'Glass Yarns Present Unique Problems' [July '56]. We enjoy TEXTILE INDUSTRIES and find it very valuable to a textile man, especially in Canada where it keeps us in touch with U.S.A. textiles."

BEN BORNSTEIN
Consolidated Textiles Ltd.
Montreal, Que. Can.

Keeping "Warp Sizing"

"I am keeping a collection of the articles you are publishing on Warp Sizing by Mr. P. V. Seydel. . . . "

C. E. LAZARIDES
Tech. Dir. Castelar
Buenos Aires, Argentina, S.A.

Aid for Quality Control Program

"Recently I read an article . . . 'Research and Quality Control Pay Off' [March '53]. We feel that this article, and the information given in it, will aid us in our Quality Control

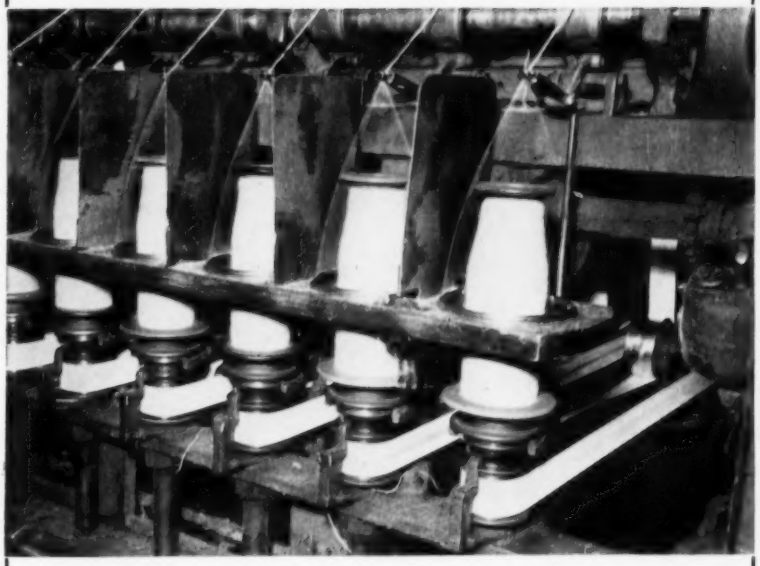
Booth

Originators of **STRIP-O-MATIC CARD CLOTHING**

FIRST . . . . . **STRIP-O-MATIC**

SECOND . . . . . **SUPR-O-TAPE**

Now... **SUPR-O-BAND**



SUPR-O-BAND, the new banding for spindle drives on spinning, twisting, and roving frames. Promises to be as successful as SUPR-O-TAPE that revolutionized woolen condensing "over night."

ALREADY PROVED by more than a year of rugged mill tests. Note these plus features:

- IMPROVED QUALITY
- LOWER POWER CONSUMPTION
- INCREASED PRODUCTION
- MORE ECONOMICAL

BECAUSE . . . SUPR-O-BANDS Give:

- OPTIMUM SPINDLE SPEED
- LONG LIFE
- UNIFORM TWIST
- MAXIMUM FRICTION—NO SLIPPAGE
- LOWEST COST

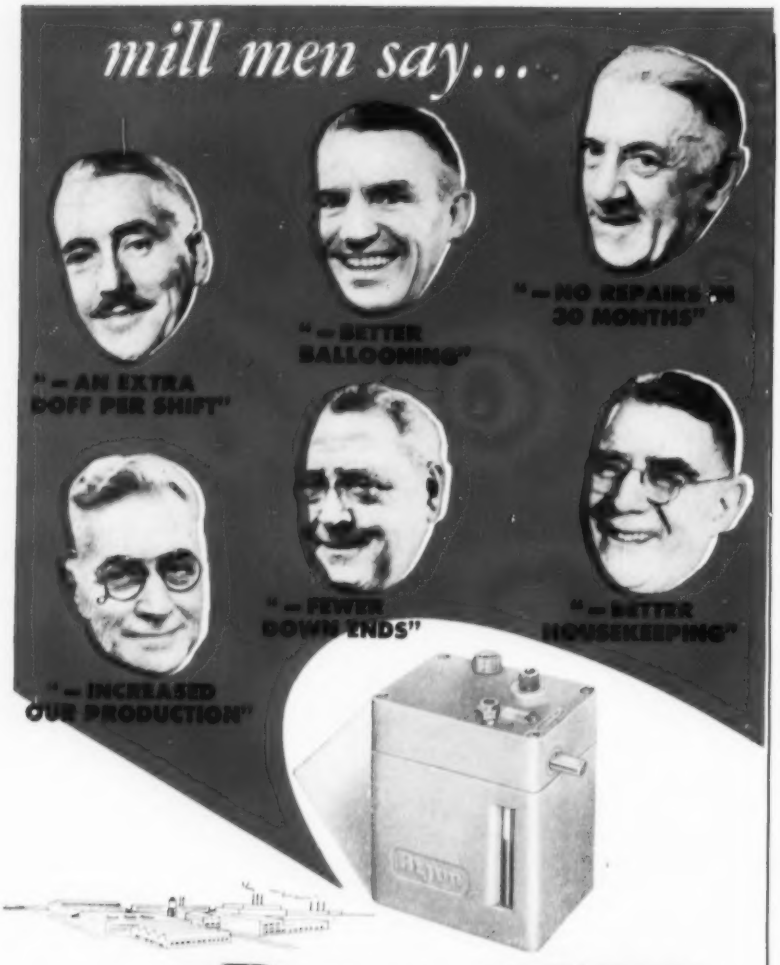
SUPR-O-BANDS are lint-free; use belt-hooks or stitching.

- STRIP-O-MATIC CARD CLOTHING
- CONVENTIONAL CARD CLOTHING
- SUPR-O-TAPE FOR CONDENSERS

BENJAMIN BOOTH COMPANY

ALLEGHENY & JANNEY STS., PHILA. 34, PA.

Booth


mill men say...
"— AN EXTRA DOFF PER SHIFT"
"— BETTER BALLOONING"
"— NO REPAIRS IN 30 MONTHS"
"— INCREASED OUR PRODUCTION"
"— FEWER DOWN ENDS"
"— BETTER HOUSEKEEPING"

with **BIJUR** AUTOMATIC LUBRICATION

"INCREASED production, big cuts in repair costs and maintenance man-hours" — You'll hear this from mill men who have switched to Bijur automatic lubrication.

Poor lubrication causes most textile machinery breakdowns. Bijur Automatic Lubrication licks the problem of undue bearing wear. It supplies, automatically, the correct amount of filtered oil at pre-determined intervals. Unlike the fellow who handles the oil can, the Bijur System never forgets a bearing. There are no inaccessible bearings when you use the Bijur System.

Machines are lubricated while running which eliminates downtime for oiling and avoids injuries to workers. You save up to 50% on oil consumption. There's no excess oil to splatter and spoil materials and cause fire hazards.

With all these impressive benefits, it's time to discard hit and miss hand oiling. Let a Bijur field representative help you to incorporate the Bijur Automatic Lubrication System into your machines.

Colorful, new bulletin, "From Fibre to Fabric," shows the practical benefits that Bijur Automatic Lubrication offers to the Textile Industry. Write for your copy.

BIJUR
LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

Shorts and Remnants

Program here at Industrial Plant. . ."
M. HURT RAMSEY, JR.
Asst. Supt.
J. P. Stevens & Co., Inc.
Rock Hill, S. C.

Wants Treated Aprons

" . . . An article [Dec. '56] concerning spinning with treated leather aprons. Please advise how these aprons are treated and who can supply such aprons."
N. C. GRYNDAHL
Div. Mgr.
Monarch Knitting Co. Ltd.
Ajax, Ont., Can.

► That's Russell A. Singleton, Blanco, Tex.

"Weaving Defects" Helpful

". . . The writer has found this series of articles (Weaving Defects '55) very helpful to him . . . anxious to get an additional copy for one of our other employees. . ."
H. M. PONTEFRACT
Supt.
Hockmeyer Bros. Inc.
Lowell, Mass.

Gets 24 Copies Cross Index

" . . . May I put in my usual annual request now, for 24 loose copies of your Annual Index to the current volume of TEXTILE INDUSTRIES, to be sent to this library on publication. These are distributed to Foreman and Manager for reference."
LIBRARIAN
Bradford Cotton Mills Ltd.
Camperdown N.S.W. Australia.

Praise for "The Roving Frame"

"I have recently read . . . 'The Roving Frame' by Fay Martin ('38) . . . one of the finest articles on Roving Frames written."
VICTOR O. B. SLATER, JR.
Calhoun Mills
Calhoun Falls, S. C.

Wants Weave Room Control Article

" . . . You have run an article concerning production control and complicated textile production where many styles of warp and filling are utilized. We have checked through recent back copies, but have been unable to locate this article. . . ."
FREDERICK S. WAITE
Stevens Linen Associates, Inc.
Webster, Mass.

► Must be "Weave Room Records

100 years

HIGH PERFORMANCE SHEARING MACHINES

High Performance Shearing Machines (Model CA3) for special finishing of Wool, Terry Cloth and Corduroy, Silk, Velvet, Drapery Fabrics and Plush.

Manufacturing Program:

DEPT. 1
Finishing Machines for Woolens, Cotton, Cellular Wool, etc.

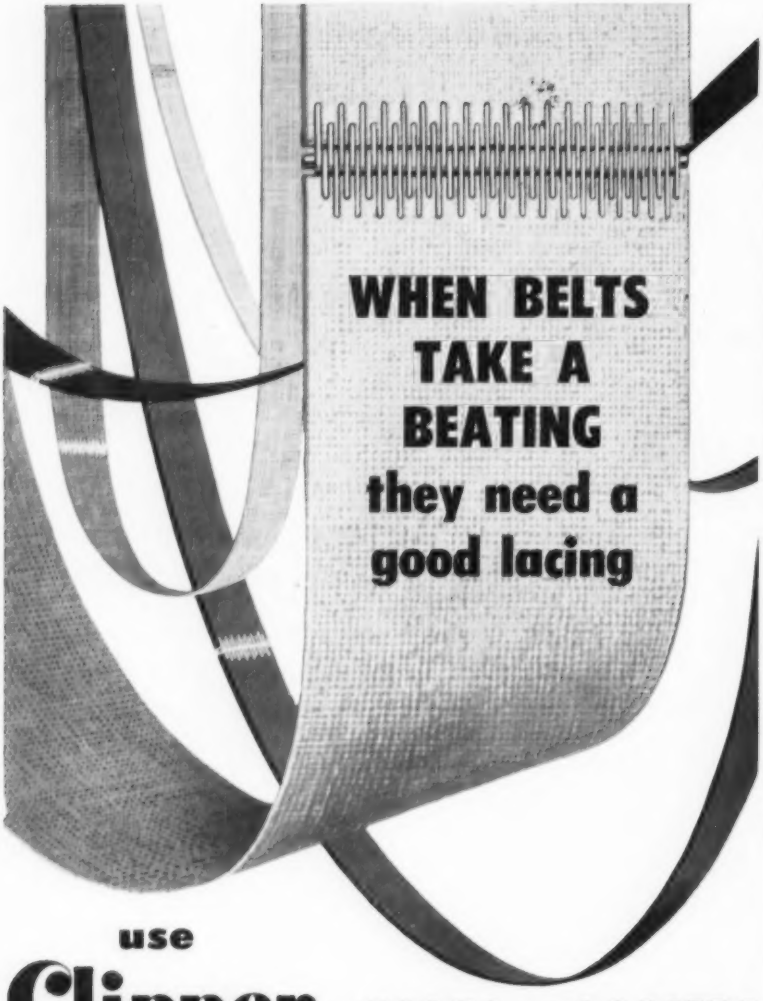
DEPT. 2
Cutting & Finishing Machines for Corduroy, Velveteen, Suedes.

DEPT. 3
Weaving Preparatory Machines, High-Speed Cone Winder, Yarn Singeing Machines, High-Speed Warping Machines.

FRANZ MULLER · MASCHINENFABRIK · M. GLADBACH (Rheinl.)

North America:
Textile Machinery Import Co., Inc.
277 North Avenue,
New Rochelle, N. Y.

Southern States:
Parrot & Ballentine,
510 South Carolina
National Bank Building,
Greenville, S. C.



use
Clipper HOOKS and LACERS

High speeds, heavy loads, small-diameter pulleys, crowned rollers — these and many other conditions add up to hard wear for all types of belting, and weak spots cause unnecessary trouble. Make belt joints as durable as the belt itself. Use Clipper Hooks and Lacers. Clipper machine-lacing makes smooth, flexible, longer-lasting belt joints that save wear on expensive belts and machinery, slash costly maintenance and reduce unproductive downtime.

FOR MORE INFORMATION

Detailed product information and case history examples of Clipper machine-lacing benefits are contained in Bulletin No. 157. Send for your free copy today.

Ask your Industrial Distributor for Clipper Products

Clipper BELT LACER COMPANY

980 Front Ave., N. W. Grand Rapids 2, Michigan

Shorts and Remnants

Simplified With Standard Forms" [Apr. '56].

"Weaving Filament Synthetics"

"We are interested in obtaining copies (3) of articles written under the title of 'Weaving Filament Synthetics'. . ."

PETER D. RUSTCHAK
Supt.
Kanmak Mills, Inc.
Kulpmont, Penna.

Wants Absorber Chemicals

"We are subscribers . . . and refering to the good services you give about information of any of your announcers, we should like you to inform us the direction of the product SORBTEX PROCESS providers. . ."

LA COLONIA S.A.
Puebla, Pue., Mexico

► The direction must be Sorbitex of Hart Products Corp., New York.

TI Covers Wide Field

"As a reader of your magazine, the undersigned was interested to see an inquiry [July '56] entitled "How Are Lenos Woven on Narrow Fabric Looms? . . ."

DUNCAN MACNEILL & CO. LTD.
Dunster House,
London, Eng.

Wants Dyes for Nylon & Cotton Socks

"As a constant reader and subscriber . . . we are writing you to request for a complete set of cotton and nylon dyes for crossed dyeing men's filament nylon socks which has cotton on the heel, sole and elastic top. . ."

T. N. TAN
Gen. Mgr.
Manila Bay Hosiery Mills, Inc.
Paco Manila, Philippines

More "Non-Woven"

"We would like to study the importance and the way of manufacture of 'Nonwoven Fabrics' . . ."

J. B. McGUIRE
Vice-Pres.
Foram Corp.
New York, N. Y.

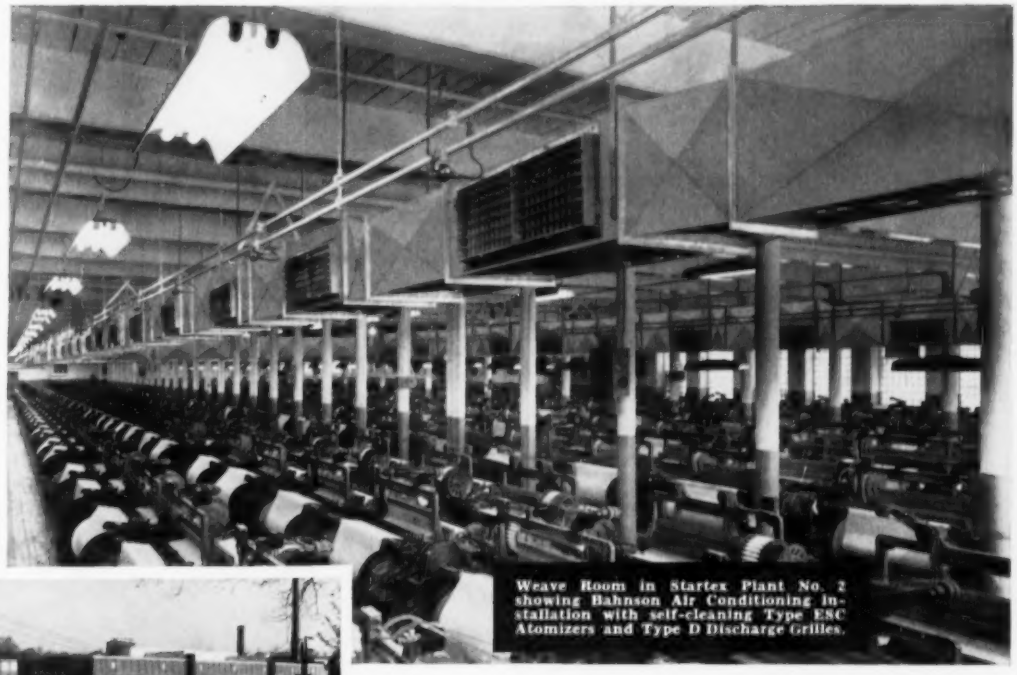
Wants Cotton Batting Machinery

"Could you give me the names and addresses of dealers in machinery for the production of batting and ab-

(Continued on page 26)

BAHNSON CENTRAL STATION AIR CONDITIONING

with capacity for more than a million cubic feet of air every minute installed at STARTEX® Mills



Weave Room in Startex Plant No. 2 showing Bahnson Air Conditioning installation with self-cleaning Type ESC Atomizers and Type D Discharge Grilles.

Exterior view of Startex plants at Startex, S. C.

"To air condition the plants of Startex Mills, Division of Spartan Mills, Spartanburg, S. C., our engineers designed a Central Station System with refrigeration and high quality components, built for long life and dependable service. Careful attention was given to Startex's requirements in each plant, in each room. Features such as Bahnson axial-flow fans and functional apparatus towers housing Bahnson air washers with stainless steel hinged eliminators help provide top performance and operating efficiency.

The Bahnson Company has the experience, know-how, and complete facilities to assist you with your air conditioning needs. Write me directly at the Bahnson Co., Dept. R, for full information. Ask for Bulletin 22A."

Agnew Bahnson Jr.
President
The Bahnson Company

91 of the top 100

Of the nation's top 100 textile mills 91 are users of Bahnson equipment

Bahnson
COMPANY
WINSTON-SALEM, N. C.

AIR CONDITIONING
HUMIDIFICATION
VACUUM COLLECTION
CLEANING
CREELS

Known for high quality textile finishes, The Pond Lily Company, New Haven, Conn., has used Diastafor desizing agent for more than 30 years.

Most often where quality of finish and process economy are essential, you will find finishers and dyers insist upon Diastafor, a favorite for almost 50 years.

Diastafor can be used at high desizing temperatures to speed work and save time. Diastafor is thermostable and retains its high enzyme activity at temperatures up to 180-200° F.

If your operation requires a quality finish, insist upon a Diastafor desizing agent for speed, economy and uniform results. Diastafor is available in several strengths to meet your individual needs.

▲ Continuous range operation at The Pond Lily Company

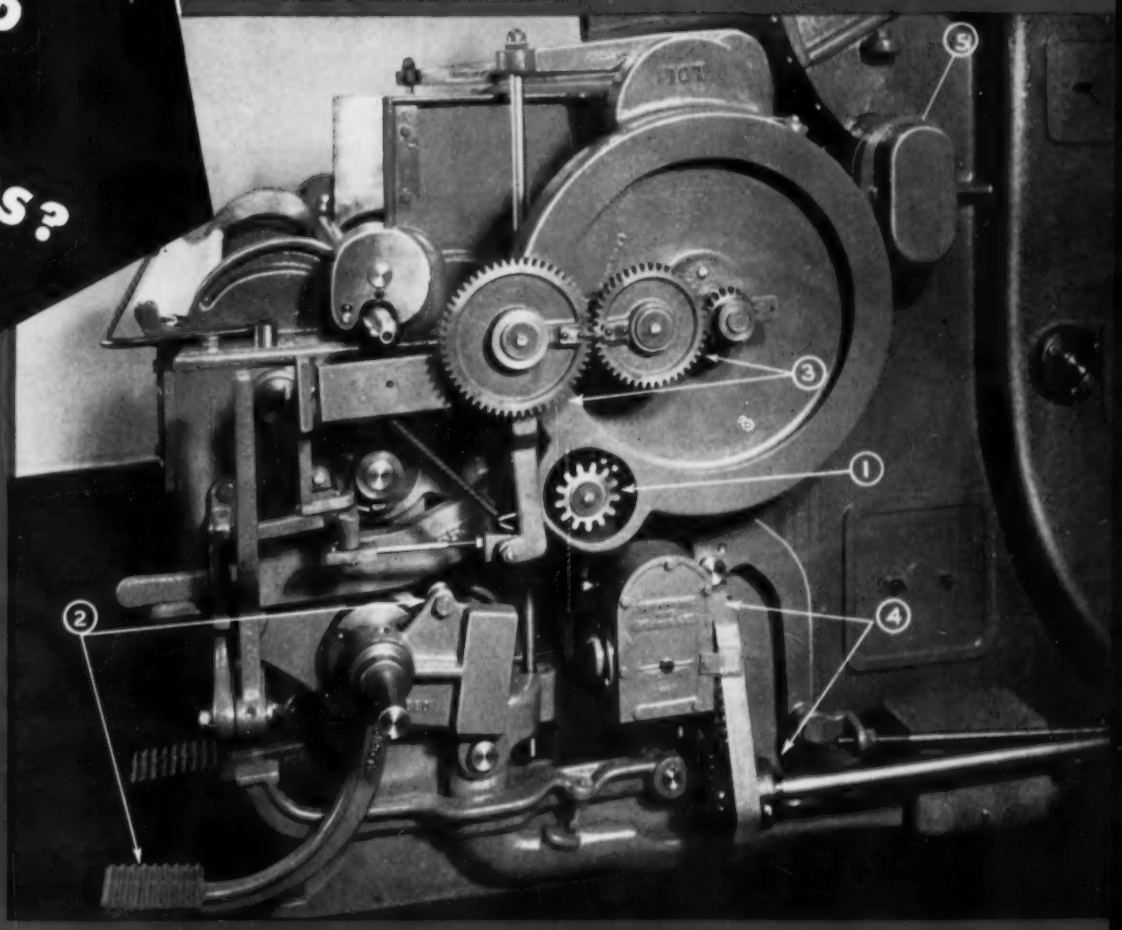
A good prepare means *a better finish*

DIASTAFOR®

DE-SIZING AGENT

STANDARD BRANDS INCORPORATED • DIASTAFOR DEPARTMENT • NEW YORK 22, N. Y.

NEED NEW PICKERS?



1. Cut steel drop-shaft gear where sand-tooth cast iron gears are usually used. All spur gears on an Aldrich picker are cut.
2. The powerful starting pedal, providing tremendous leverage for positively engaging the drop-shaft gear.
3. The Stop-Motion is out where you can get at it for quick resetting. The guard is open at the bottom for easy access.
4. The really silent side-shaft drive, providing any desired speed changes. The drive and side-shaft run on ball bearings.
5. Self-aligning Oilite draw roll bearings.

AldricH MachinE WorkS

Greenwood, South Carolina

HERE'S WHY

ARMSTRONG J-490 COTS REDUCE LAP-UPS . . . NO MATTER WHAT YOU'RE SPINNING

Whether you're spinning natural fibers, synthetic fibers, or blends, you'll get far fewer lap-ups if you use the roll cover with "built-in" lap resistance—Armstrong J-490 Accotex®.

J-490's resist lapping because they are made of a patented synthetic rubber compound that effectively neutralizes the normal electrical attraction between roll cover and fiber. The compound contains special electrolytes that actually tend to repel broken ends, preventing them from lapping.

The J-490 compound offers other important advantages, too. Because it contains no rough fillers, its drafting surface is always uniformly smooth. This roll cover won't pull fibers from the stock, neither will it cause excessive ends down.

Armstrong J-490 Cots are durable, too. Their synthetic rubber compound is exceptionally long wearing, and is never affected by oils, dyes, or commonly used textile solvents. In fact, all that's normally needed to keep this cot spinning like new for years is an occasional re-buffing.

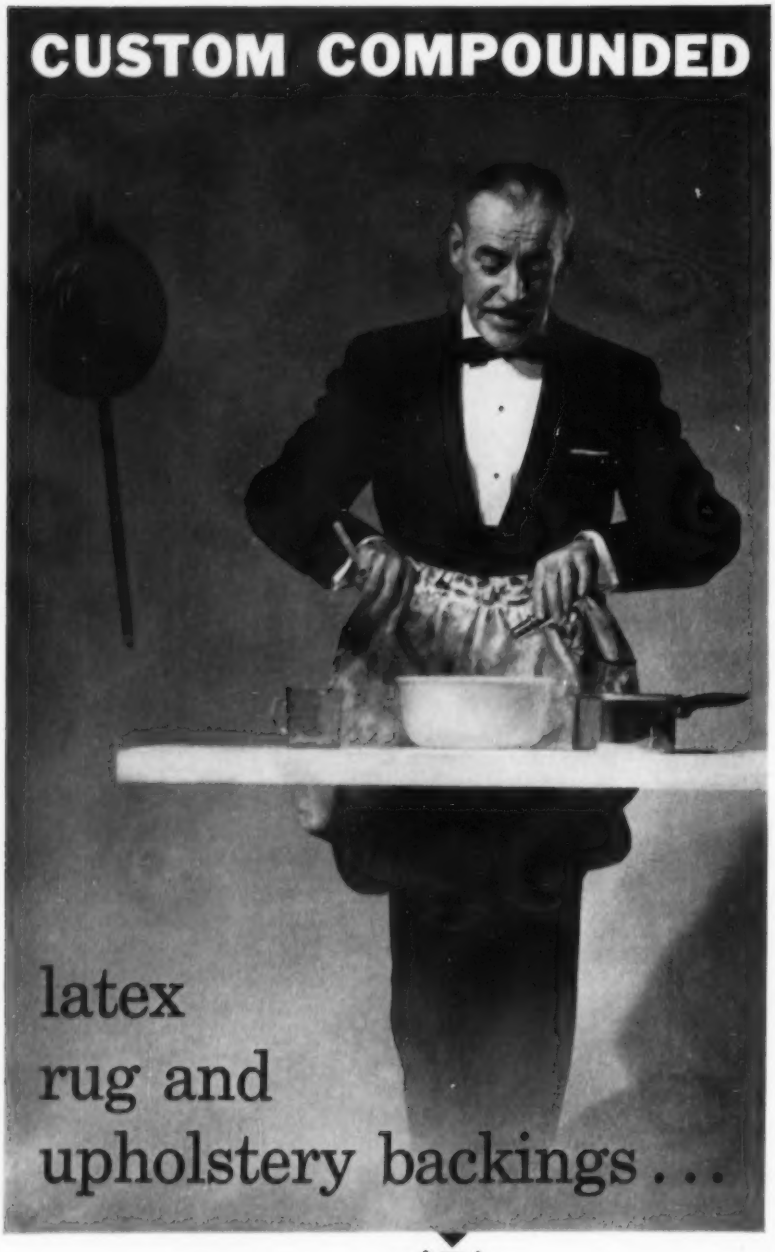
You can prove on your own frames how long-wearing J-490 Accotex Cots help prevent lapping and improve yarn quality. Your Armstrong representative will be glad to arrange for a test side. Call him today, or write direct to Armstrong.

For more information about J-490 Accotex Cots and the many other Armstrong textile products, write for a copy of our new booklet, "Armstrong Textile Products." Address Armstrong Cork Company, Industrial Division, 6504 Davis Avenue, Lancaster, Pa. All Armstrong textile products are available for export.

P. S. Whatever the problem in your spinning room, you'll most likely find a quick solution in one of several materials in the Armstrong Accotex line. For example, there are special compounds designed to give maximum eyebrow resistance. And if you need the improved yarn control offered by a softer material, there are Accotex compounds to meet this need. Where high-static conditions aggravate the lapping problem, there is a group of new anti-static Accotex materials made especially to combat these conditions. Your Armstrong man will be glad to help you choose the right roll cover for best performance in your spinning room.

Armstrong ACCOTEX COTS

. . . used wherever performance counts



All General Latex natural and synthetic latex compounds are blended to perfection . . . to meet your most discriminating requirements. **Let us have your inquiry.**

GENERAL LATEX AND CHEMICAL CORPORATION

666 Main Street, Cambridge 39, Mass.

importers and compounders

General Latex and Chemical Corporation (of Ohio) Ashland, Ohio
General Latex and Chemical Corporation (of Ga.) 1206 Lamar Street, Dalton, Georgia
General Latex & Chemicals (Canada) Ltd. 425 River Street, Verdun, Montreal, Canada

representatives in principal cities—exclusive agents for sale in U.S.A. of Harrisons & Crosfield Malayan Latex—sales agent in U.S.A. for Goodyear's PLIOLITE Latices

Shorts and Remnants

(Continued from page 20)

sorbent cotton for medical and other purposes? . . ."

NATHAN ROZENBILT
1905 Berryman
Berkeley 9, Calif.

► Sometimes we don't know the answer. Reader **Arnold Luster,** owner Fiber Cone Finish Co., Los Angeles, Calif., planning entry into sponging, wants to know present and long trend analysis of decreasing London, increasing American sponging; on more foreign wool imports coming in ready for needle. Can anyone help him with ideas on this?

► **John H. Senior,** V.P. Proctor & Schwartz, Inc., Phila., and **John L. Shay,** UBS Chemical Corp., Cambridge, Mass., are additional requisitioners for copies of "Synthetic Latices for the Textile Industry" (Jan. '57).

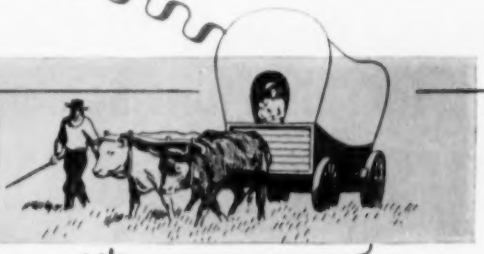
► **M. O. Kremers,** Glenoit Mills, Inc., Janesville, Wis., questions running of Acrilan on full-fashioned sweater knitters (Dec. '56); Establissements Badin & Fils, Barentin, France, tested our French in a letter asking meaning of C.C. in a Jan. '57 yarn count table; **Osbert Hughes,** Bristol (R. I.) Worsted Co., says current "Warp Sizing" series is "extremely valuable." **A. Lee Ward,** Supt. Bleachery, Postex Cotton Mills, Post, Tex., wants data on Foxboro Dynalog Controller; Nebratex, Ltda, wants laminated shuttles.

Next month will have more on reprints of Feb. "Purchasing" featuring Dan River Mills, Inc.; also other mill and salesmen comments. One company wanted 50 copies for their salesmen. It was a popular issue.

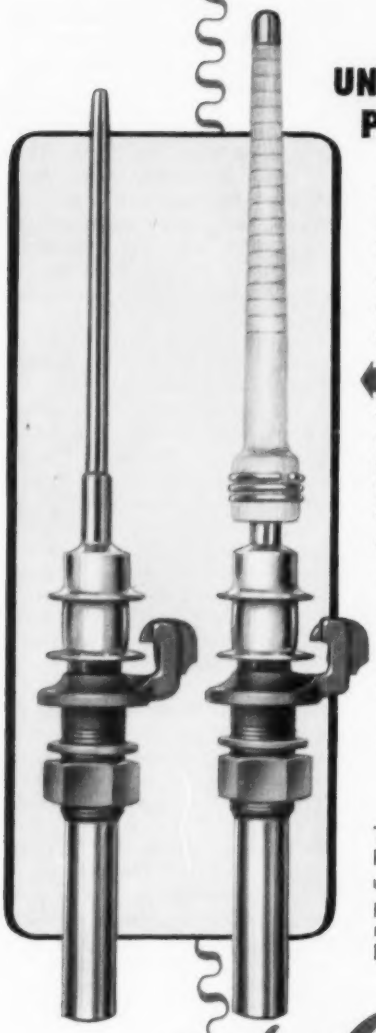
James Rothrock, Supt. Classe Ribbon Works, Anniston, Ala., and **Vincent Sallese,** Chem., American Mfg. Co., Brooklyn, both write for information on Custom Scientific Instrument's Dec. '56 ad. Same for **A. A. Finkelstein,** Treas. Atlantic Knitting Corp., Providence, R. I., on Kidde Compensators (Dec. ad). Same for **A. M. Goodman,** Mgr. Robinson Textile Co. West New York, N. J., on Exact Weight Scales' Dec. ad.

John J. Latalien, Navajo Rug Co., Vallejo, Calif., wants braided rug machinery. On the tufting side, **J. A. Cobble,** Pres. Super Tufter Ma-

WHITIN



*Pioneer** SPINDLES
for Spinning
UNEQUALLED for PERFORMANCE PRODUCTIVITY • LONG LIFE



For outstanding performance, productivity, and low cost of operation, Whitin PIONEER Spindles for spinning are specified by leading mills. Their design, construction, and manufacture are the result of more than a century's experience.

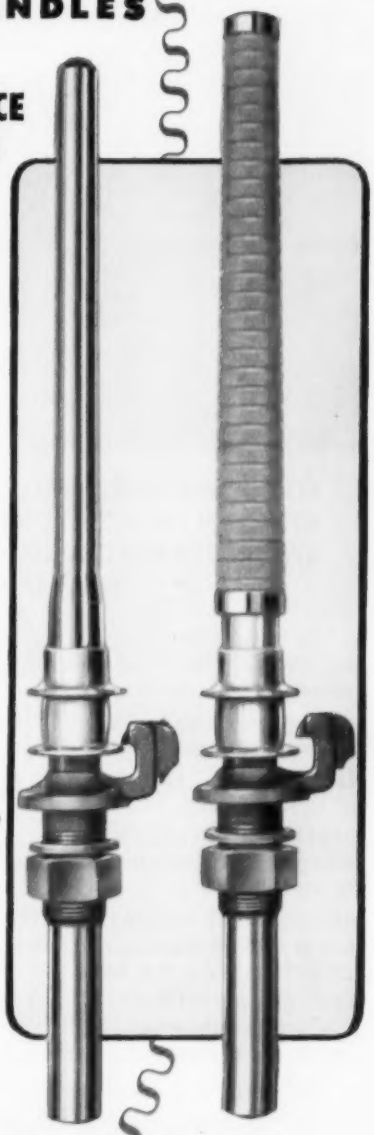
TOP DRIVE TYPE**

Whitin's newest spindle for wood filling bobbins drives the bobbins from inside the bobbin nose or top. Thoroughly tested in large installations in several mills, it provides many attractive advantages over conventional cone drive filling spindles.

- Increase of 15-20% in spindle speed
- Approximately 10% more yarn on the bobbin
- Improved bobbin wind secured through better tension
- Bobbin centralizing on own axis means less vibration
- Improved spinning production and quality

ALUMINUM SLEEVE TYPE

This spindle for paper tubes is acclaimed by the users of approximately 2,000,000 as unmatched for its long wear, simplicity in plumbing and maintenance, smooth running characteristics, and extremely low lubrication costs.



* Trade-Mark

** Anti-Friction, of course

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

Why The Manager Of Engineering In This Plant Selected TRUSCON COATINGS

FLOORS, MACHINES, WALLS AND CEILINGS AND EXTERIOR OF THIS PLANT ARE TRUSCON PROTECTED . . . EACH BY A SPECIALIZED COATING DESIGNED TO PROVIDE MAXIMUM WEAR AND PROTECTION

By following the Truscon consultants' recommendations, the Purchasing Agent and Plant Engineer in this plant know that each piece of property and equipment receives the best protection that modern paint chemistry can offer.

Because of Truscon Laboratories' nearly 50 years experience and reputation in the field of specialized maintenance coatings, you, too, can rely on:

TOP QUALITY . . . Finest ingredients and best techniques of formulating characterize all Truscon products.

DEPENDABLE PERFORMANCE . . . All Truscon products undergo exhaustive field testing for wear, weathering, color retention and coverage, before they are placed on the market.

GOOD SERVICE AND FAST DELIVERY . . . A Truscon factory branch in your area assures complete inventories and trained personnel—immediate delivery and service are available to you at all times.

FREE CONSULTATION . . . Truscon consultants are factory trained in the proper selection of specialized coatings for all conditions—alkaline, acid, rust, moisture, etc., and are at your disposal at all times for consultation with your own staff.

Call your Truscon representative today for an "on the spot" demonstration of Truscon products under your exposure conditions.

TRUSCON
Industrial Maintenance Division of
Devoe & Raynolds Co., Inc.
Laboratories
Detroit 11, Michigan

Shorts and Remnants

chinery Co., Ft. Oglethorpe, Ga., asks for information on Reeves variable speed drives (Dec. ad). The Dodenhoff Hydraulic Loom Checkmaster attracted **H. Deslauriers,** Pur. Agt. Agers, Ltd., Lachute Mills, Que., Canada.

Industrial engineers requesting materials handling ad information include **Ed Harrington,** Canadian Cottons Ltd., Cornwall, Ont., Can., on Bennett Rose trucks (Nov. ad) and **Anthony Astalone,** United Merchants & Mfrs., New York, N. Y., on Richards-Wilcox overhead rail. **Jean Plate,** Supt. International Braid Co., Fall River, Mass., asks more on Sinclair oil (Nov. ad); **Jos. Coladari,** Pres. Barbizon Textile, Paterson, N. J., wants data on Buffalo ventilating fans.

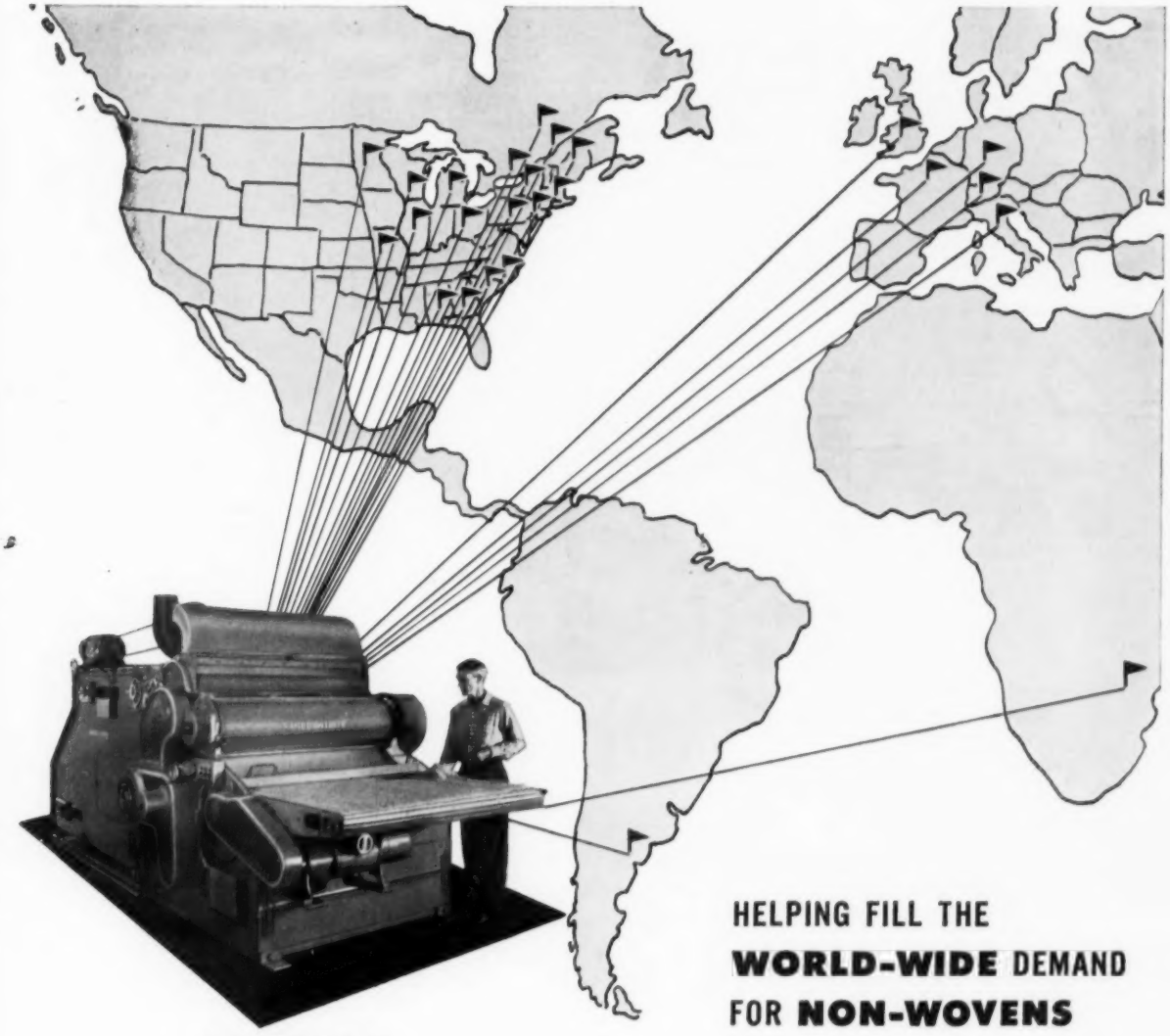
► 'Twas always thus. Want to turn off your TV set when old "Blabbermouth" comes on? Then listen to old Dr. Samuel Johnson who said in 1700 "The trade of advertising is now so near perfection, that it is not easy to propose any improvement . . . But as every art ought to be exercised in due subordination to the public good, I cannot but propose it as a moral question to these masters of the public ear, whether they do not sometimes play too wantonly with our passions. . ."

► Quoting **Karl Marx** — "An ass in a horse's stable does not make it a horse," or "If you want to make a clean sweep, don't sit on the broom," or "The biggest nuts are often hollow."

Now that's not the Karl Marx with the evil eye, but Karl Theodore Marx with Robert Reiner, Inc., who also writes short stories, radio and TV scripts, etc., and who now has a collection of "Random Thoughts" in book form at $1.00 a copy from Drechsel Printing Co., 56 East 11th St., N. Y.

► What's in a name? The Rebel Dyeing Co. is at Johnstown, N. Y. (Deep South).

So, what's in a name? An unsigned reader sends us a clipping on M. A. *Woolen* being elected a director of the Atlanta *Cotton* Exchange, Inc. Yes, sir. Mr. Woolen (Anderson-Clayton & Co.) sells cotton, and that's all until May.



HELPING FILL THE
WORLD-WIDE DEMAND
FOR **NON-WOVENS**

NOW

RANDO-FEEDERS® and RANDO-WEBBERS® are producing RANDO-WEBS® in 8 foreign Countries, 15 States

In just 5 short years these unusual machines have earned world-wide recognition and the acceptance of the textile industry.

WRITE today for details on the *new* 40", 60" and 84" machines. Ask for Bulletin 104.

TEXTILE DIVISION
CURLATOR®
CORPORATION
EAST ROCHESTER, NEW YORK

EXPORT REPRESENTATIVE: Lendt & Company, 535 Fifth Ave., New York 17, N.Y.
SOUTHERN REPRESENTATIVE: Parrott & Ballentine
510 South Carolina, National Bank Bldg., Greenville, S. C.

Personal NOTES
ABOUT MEN YOU KNOW

Joseph H. Jones, superintendent of Phoenix Dye Works, Chicago, has been appointed a new member of the AATCC's executive committee on research. **V. B. Holland,** chief chemist of Cannon Mills, Kannapolis, N. C., was also named to the committee, and both men were appointed members of the technical committee on research, along with **Charles L. Zimmerman,** group leader, American Cyanamid Co. Other research committee appointments include: **Richard F. Aurich,** of Joseph Bancroft & Sons, Wilmington, Del., chairman of the committee on damage caused by chlorine retention; and **John V. Killheffer,** laboratory manager, E. I. du Pont de Nemours & Co., Inc., organic chemicals dept., Charlotte, N. C., chairman of a new committee to investigate a new method of evaluating evenness of package dyeing.

W. H. Rawlings is now assistant treasurer of Erwin Mills, Inc., Durham, N. C., in addition to his other duties as manager of the cost accounting department. **A. C. Sorrell** steps up from assistant to the controller to assistant controller. * * * Plans have been made by Lander College, Greenwood, S. C., to confer upon **F. E. Grier,** president of Abney Mills, Greenwood, S. C., and president of ACMI, an honorary Doctor of Humanities degree, at the 95th commencement exercises on May 26.

Named a director of Sidney Blumenthal & Co., was **Roy H. Niebling,**

Mr. Niebling

director of manufacturing at the Caromount division, Rocky Mount, N. C.

Filling a new position, vice-president in charge of sales, at Atlantic Knitting Corp., Providence, R. I., is **Louis I. Mirman,** formerly director of sales.

Recently retired as general superintendent of the Bemiston, Ala., mill of Bemis Bros. Bag Co. was **H. B. Bergfield,** who had been affiliated with the mill for 54 years.

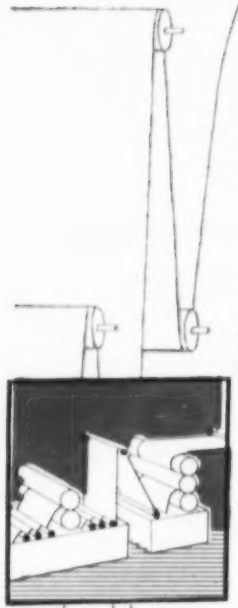
Fred L. Ford, vice-president of Athol (Mass.) Manufacturing Co., has been elected president of the Vinyl Fabrics Institute, New York, N. Y., succeeding S. Ernest Kulp, vice-president of Masland Duraleather Co., Philadelphia. **C. Gordon Jelliffe** of Columbus (Ohio) Coated Fabrics Corp., was named first vice-president, and **Paul Howard** of Weymouth

TENNESSEE CORPORATION

LIQUID SULFUR DIOXIDE HIGHEST QUALITY SO_2

for Effective Removal of

Residual Chlorine!



Tennessee's Liquid Sulfur Dioxide Is a Most Efficient and Economical Antichlor.

SO_2 accomplishes the following . .

Acidifies alkaline hypochlorite making it easier to wash out.

Reduces chlorine to the harmless valence Cl-!

Leaves fabric acid free.

Tennessee's Liquid Sulfur Dioxide practically 100% pure, is also very effective as a reducing, bleaching and neutralizing agent, and pH control.

We would like to consult with you on the possibilities of Tennessee's Liquid Sulfur Dioxide in your processing.

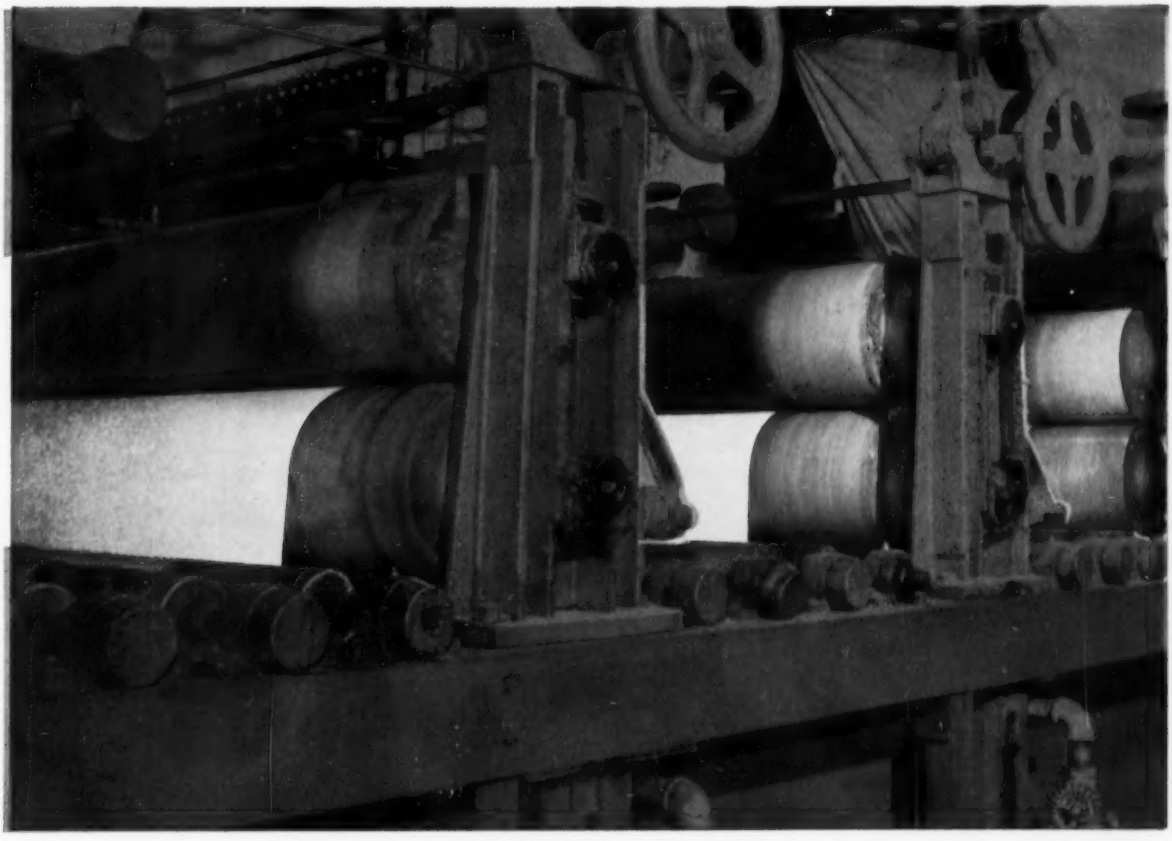
Available In:

- CYLINDERS
- TON DRUMS
- TANK TRUCKS
- TANK CARS

TENNESSEE CORPORATION

617-629 Grant Building, Atlanta, Georgia

DAYCO FINISHING ROLLS



"Job Engineered" Rolls Last Longer—Cost Less On Your Dyeing Or Embossing Operation

Use Dayco "job engineering" to cut roll costs and eliminate unnecessary downtime on every one of your operations—whether it be a dye range or special finishing. The results are astounding. Mill after mill reports—"job engineered Dayco rolls have lasted 2 times . . . 3 times . . . 9 times longer, with better service and reduced downtime in changeovers."

One Dayco customer had trouble with a back-up roller on a calender used to emboss a leather grain in a vinyl coated fabric. Previous rollers lasted only 6-8 months working in the searing heat thrown off by a 300° oven used in the process. The Dayco engineer surveyed the operation—then specified a roll made with special compounds which would withstand extreme heat and pressure and not take a permanent set. This tailor-made roll has been in operation continuously for the last 18 months and shows no signs of deterioration.

Next time you need a finishing roll of any kind, have it "job engineered" first! Write or wire the Dayco Roll Engineer at The Dayton Rubber Company, Holfast Division, 1486 Lakewood Ave., Atlanta, Ga.

Dayton Rubber

THE DAYTON RUBBER CO., DAYTON 1, OHIO

West Coast Distributor, Tillicum Rubber Co., Lacey, Washington

THE DAYTON RUBBER CO., Holfast Div.
1486 Lakewood Avenue, Atlanta, Georgia

Gentlemen:
Please rush me "All the Money-Saving Facts about the New Dayco Finishing Roll."

Name_____

Position_____

Company_____

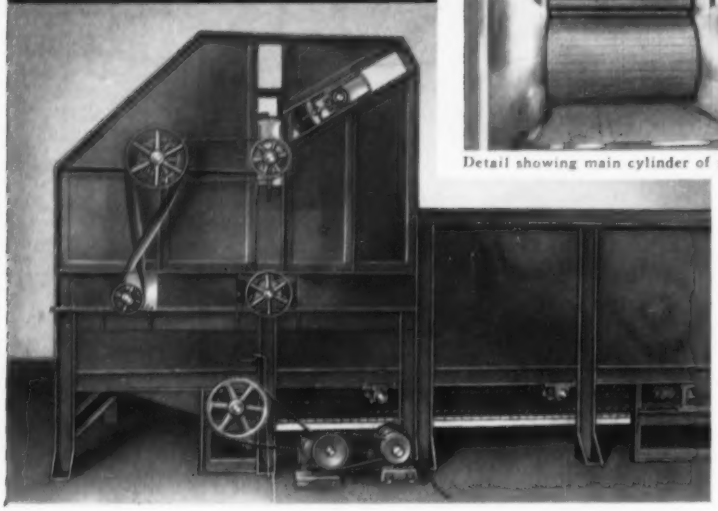
Address_____

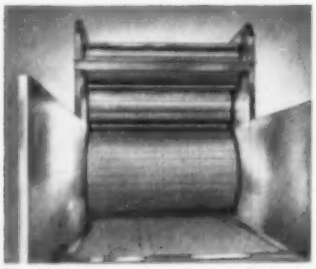
City_____ State_____

from Opening Room to Dye House

NOW! SMOOTHER OPERATION THAN YOU'D EVER DREAMED POSSIBLE

SARGENT'S





Detail showing main cylinder of opener

NEW HEAVY DUTY OPENER
with Rotary Evener and Stripper

delivers to the next succeeding process a more open, lofty fibre than ever possible with conventional-design openers.

Rotary drives replace the usual oscillating movement of evener and stripper rolls . . . exceptionally rugged construction insures less maintenance, longer life, reliable production quality of 2000 to 3000 pounds per hour . . . no feed rolls hold fibre while being picked, resulting in semi-combing action and fewer neps at the card . . . rolls adjusted to intermesh pins, providing continuous stripping . . .

From opening heavy grease wools for better picking and cleaning, to opening compacted dyed fibres — natural or synthetic — for better drying, here's a really modern-design opener to guarantee a superlative job.

Want more information? Write your nearest representative or write us direct. And ask for Bulletin No. 202.

C. G. SARGENT'S SONS CORPORATION
Graniteville, SINCE 1852 Massachusetts

PHILADELPHIA 19 — F. E. Wasson, 519 Murdock Road
CINCINNATI 15 — A. L. Merrifield, 730 Brooks Avenue
CHARLOTTE, N.C. — W. S. Anderson, Carolina Specialty Co.
ATLANTA, GA. — J. R. Angel, Mortgage Guarantee Building
TORONTO, CAN. — Hugh Williams, 47 Colborne Street

Personal NOTES ABOUT MEN YOU KNOW

Art Leather Co., South Braintree, Mass., was elected second vice-president.

Bristol Worsted, a division of Cobar Industries which recently purchased the men's wear worsted mills of Collins & Aikman in Bristol, R. I., has named **Richard Dalessandro** assistant superintendent in charge of quality control. Mr. Dalessandro was formerly with Bachmann Uxbridge Worsted Corp. as assistant manager of its Macon, Ga., spinning and weaving plant.

William Wood, Jr., and **Harold L. Roberts** have been elected vice-presidents of The Duplan Corp. Progressively salesman, southern sales manager, and sales manager of the yarn throwing division assigned to the main office of the company at

Mr. Roberts

Winston-Salem, N. C., Mr. Wood will continue to be responsible for these sales. Prior to his recent promotion, Mr. Roberts was general mill manager of the throwing division and will continue to be responsible for production.

Robert A. Gilliam, formerly vice-president, has been named executive vice-president of Burlington Mills, Greensboro, N. C., and he will continue his general coordinating responsibilities in connection with Burlington's Cramerton and Mooresville, N. C., operations. * * * **Raymond E. Kassar** has been named president of Burlington Decorative Fabrics Associates, replacing **Walter Horne** who has assumed a staff position with Burlington Industries, Inc. **James S. Love, Jr.,** sales manager, succeeds Mr. Kassar as president of Burlington Narrow Fabrics Co. * * * At the Tifton, Ga., plant of Peerless Woolen Mills, of Rossville, Ga., **Jim Malloy** formerly of the Peerless mill in Cleveland, Tenn., is in charge. Other

(Continued on page 38)

at ease in the sun!

National Solantine® Orange EGL

Here is a direct dye for moderately bright shades of orange as well as warm tones of brown and tan. Used alone or in combination, it produces very good light fastness and good-to-very-good wet fastness.

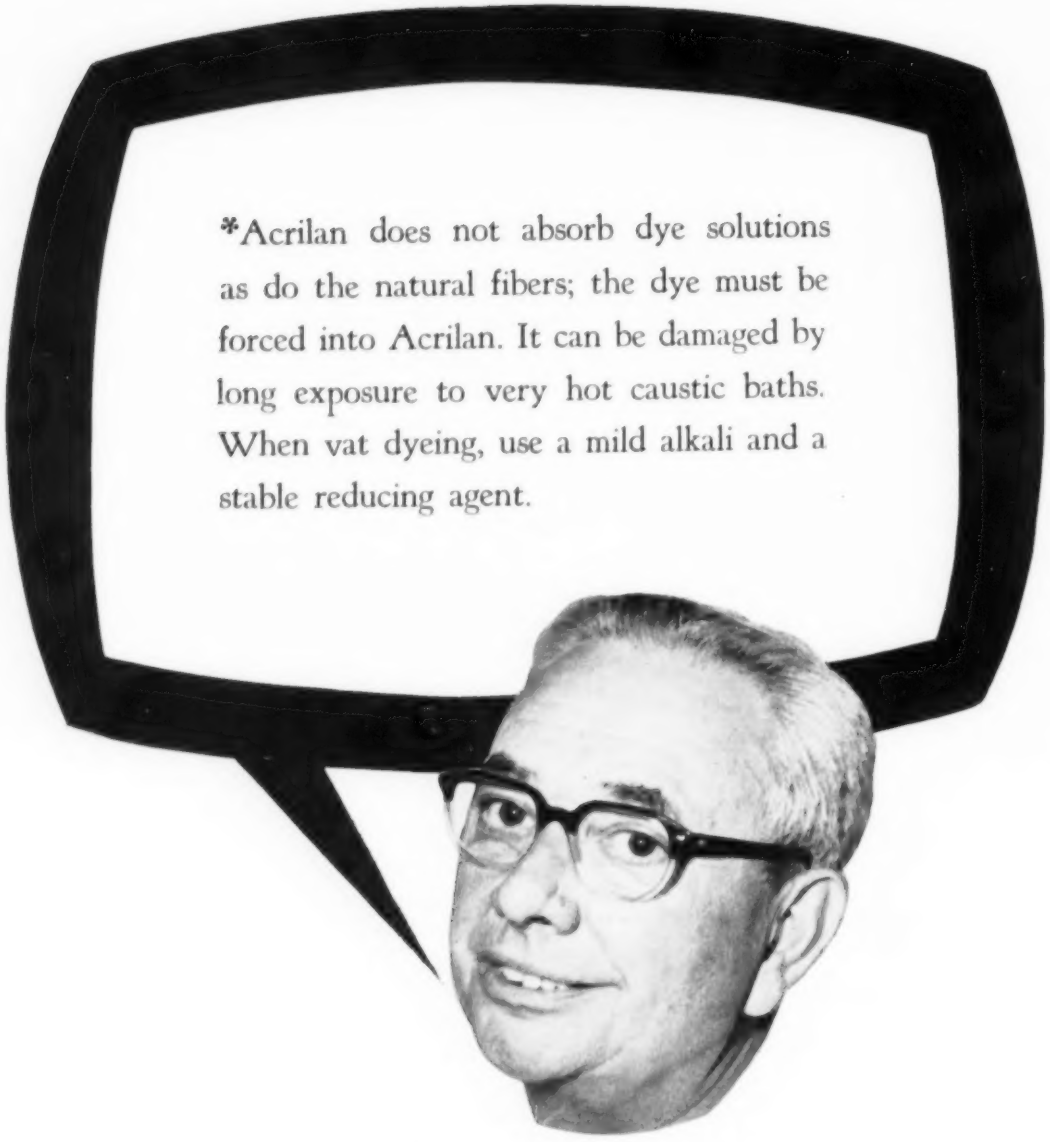
Non-dusting and extremely soluble . . . it dyes at low temperatures, levels well and is practically unaffected by metals in the dyebath. Nylon and acetate effects remain practically unstained and excellent whites are obtained with a neutral discharge.

Our nearest office will be glad to send you a working sample and a copy of descriptive Bulletin No. 438 detailing complete fastness and working properties.

NATIONAL ANILINE DIVISION ALLIED CHEMICAL & DYE CORPORATION • 40 RECTOR ST. NEW YORK 6, N. Y.

Akron Atlanta Boston Charlotte Chattanooga Chicago Columbus, Ga. Greensboro Los Angeles New Orleans Philadelphia Portland, Ore. Providence Richmond San Francisco Toronto

Allied Chemical


*Acrilan does not absorb dye solutions as do the natural fibers; the dye must be forced into Acrilan. It can be damaged by long exposure to very hot caustic baths. When vat dyeing, use a mild alkali and a stable reducing agent.

*MORTON MACHINE WORKS, INC., brings you the Old Boss Dyer with a timely tip on dyeing each month.

MORTON also brings you the finest line of dyeing, bleaching and drying equipment available today—THE MORTON SYSTEM.

There's a MORTON SYSTEM installation near you . . . and our best selling point is a trip through a mill presently using MORTON equipment. May we hear from you?

MORTON MACHINE WORKS, Inc.

COLUMBUS, GEORGIA, U. S. A.

Manufacturers of the MORTON SYSTEM Machinery for Dyeing and Bleaching of:
BEAMS -:- PACKAGES -:- STOCK -:- PIECE -:- TOPS
VALVES — PUMPS — BEAM AND PACKAGE EXTRACTORS AND DRYERS — DYE BEAMS, ALL MAKES AND DESIGNS — DYE TUBES — DYE SPINDLES — TUBE SPACERS — STAINLESS STEEL DYE TUBES
CUSTOM BUILT TANKS TO CUSTOMER'S SPECIFICATIONS.

Gates
New
Thin-Tex
Lug Straps

The greater flexibility of this new, thinner, lighter-weight lug strap is immediately apparent when Thin-Tex is seen and handled. Therefore, we offer

FREE to Textile Mill Management

a sample Thin-Tex Lug Strap for examination. Just drop a line on your letterhead. No obligation.

Gates New Thin-Tex Lug Straps give up to 25% longer life with smoother loom operation

Lighter yet stronger

Gates *New* Thin-Tex Lug Straps have maximum strength—will transmit the tremendous force of the cam action for many thousands of picks.

Built with a combination of new miracle fabrics, Thin-Tex Lug Straps reduce loom lug strap weight up to 1¼ pounds—provide smoother operation with minimum power.

Minimum stretch

Frequent adjustments to maintain power for proper loom operation are completely eliminated.

Greater flexibility

Thin-Tex Lug Straps will follow the movement of the lay-beam without bind of the picker stick, sweep stick, power strap or pick arm.

Gates New
Thin-Tex
Lug Straps

TPA 160

Send today for FREE sample. Gates Engineering Offices and Distributor Stocks are located in all textile centers.

The Gates Rubber Co., Denver, Colorado

Gates® The Mark of *Specialized* Research

Card Bands
Roll Covering
Cone and Evener Belts
Spinning Frame Drives

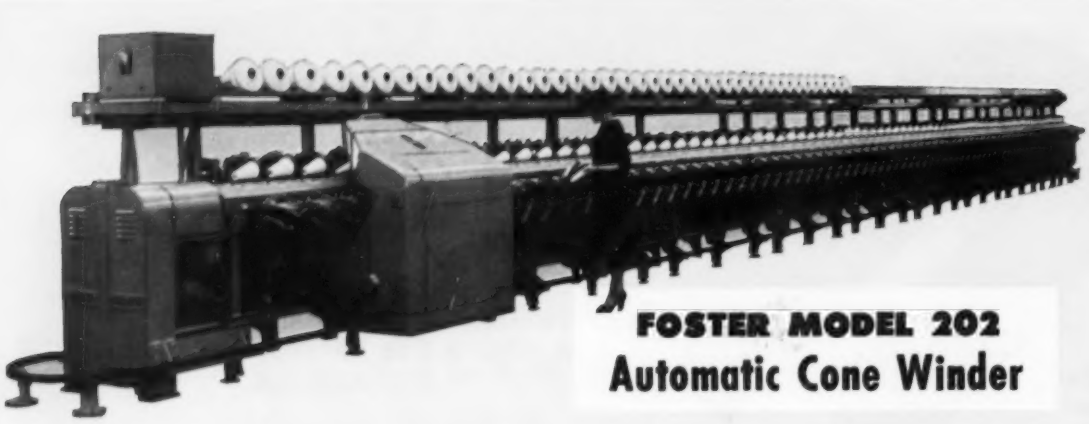
Reversible Pickers

Tex-Hide Harness Straps

Tex-Hide and Vulco Loop Pickers

Tex-Hide, Vulco and Super Tex-Hide Lug Straps

Gates Textile Accessories



FOSTER MODEL 202
Automatic Cone Winder

See It in Operation at Knitting Arts Exhibition Week of April 29 – Booths 82-84 and 99-101A Just to Left of Main Entrance

ASK FOR PRODUCTION & OPERATING COST STUDY. We expect to have available at the Show, for the first time, a time and operating cost study on a mill installation. Ask for a copy. You'll be impressed with the increase in production and the decrease in operating cost which this machine effects.

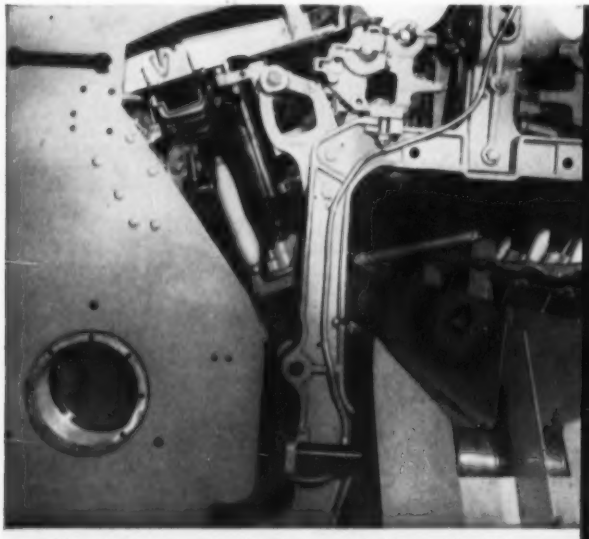
ASK ABOUT IMPROVEMENTS IN DESIGN, including new head end assuring more positive control, central oil mist lubrication, knotters for a wide range of yarns, faster knot tying, and micrometer adjusted slubcatchers.

All operations on the Foster Model 202 are automatic, except the donning and doffing of cones and the positioning of full bobbins for the automatic knot tier.

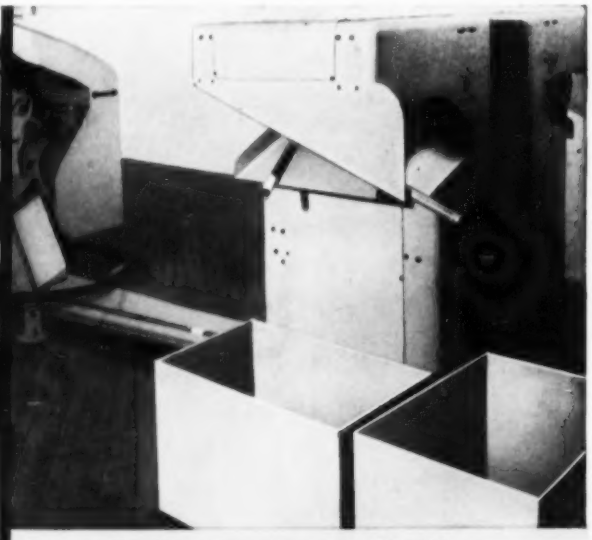
If you don't already have tickets for the Knitting Arts Exhibition, ask us for as many as you want. No obligations.

FOSTER MACHINE COMPANY
Westfield, Massachusetts, U. S. A.

Southern Office — Johnston Bldg., Charlotte, N. C. • *Canadian Representative* — Ross Whitehead and Company Limited, 1475 Mountain St., Montreal, Que. and 100 Dixie Plaza, Port Credit, Ont. • *European Representative* — Muschamp Textile Machinery Limited, Keb Lane Bardsley, Oldham, England



Showing automatic donning and doffing of bobbins.



Showing automatic sorting of bobbins.

more cleaning power per dollar!

NACCONOL® SL

Textile detergent buyers have a sharp eye for money-value. That is why they have made Nacconol SL the best-selling liquid detergent* in the textile industry.

They know that Nacconol SL gives them more cleaning power per dollar on an active-ingredient basis compared with most dry products.

And Nacconol SL cuts production costs, too, because it is cleaner and easier to handle. Liquid Nacconol SL requires no dissolving.

If you're not using Nacconol SL now, get our price and request a sample. You'll find it's your best money-value today.

Other popular forms of Nacconol for wet processing are Nacconol DB, Nacconol DBX and Nacconol NRSF.

*Alkyl aryl sulfonate

Nacconol

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Allied Chemical

New Flyer Performance

Only $1.25

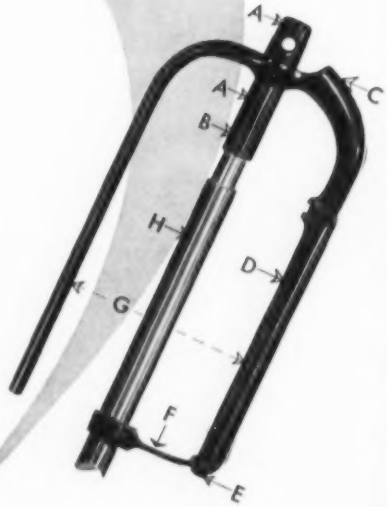
Restore your flyers to new performance efficiency — actually better than new in some respects.

A FULL Ideal Flyer Reconditioning** job includes services not available anywhere else. Barrel hubs are *die-swaged*, full length. All flyers sit at same height on spindles. Selecto-Speed* Balancing makes *all* of your flyers run, with the precision of a West Point Cadet parade line, *at your operating speeds*. The Ideal tag-and-rust resistant finish is superior to any other for stopping slubs and tags.

If your flyers wobble — your roving jerks — ends run over at top or bottom of the bobbin — or show any other sign of wear, it will pay you to get full information on Ideal Flyer Reconditioning Service.

**Ideal offers partial services — comparable to those available elsewhere — starting at 48c.

A Realigned
B Die-swaged full length
C Slots regauged
D Hollow leg repaired
E Ends rebuilt and refinished
F Pressers blocked
G Flyers blocked
H Rebuilt or replaced



*Patented

Ideal Machine Shops, Inc., Bessemer City, N. C.

Continuous Service to Textile Mills Since 1925

Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 32)

executives from the Rossville plant now at Tifton include **Bob McCoy,** personnel director; **Norm Boyette** and **George Humphreys,** assisting in the personnel department; **Ed Husky,** card room overseer; **Roy Grant,** overseer of the spinning room; **Aubrey Dow,** dyehouse superintendent; **Ralph Suggs,** assisting in the dyehouse, and **Jim Beasley,** maintenance supervisor. * * * Newly named superintendent of Radford (Va.) Weaving Co. is **B. W. McKenzie,** succeeding **Donald Bair,** acting superintendent, who has been assigned staff duties with the filament weaving division. Mr. McKenzie was formerly plant manager of the Hartwell, Ga., plant of The Amerotron Corp.

S. A. Steere, formerly vice-president of Goodyear Fabric Mills, of Goodyear Tire & Rubber Co., has retired. **William K. Wilder** has been named manager of the Decatur, Ala., plant and has also assumed adminis-

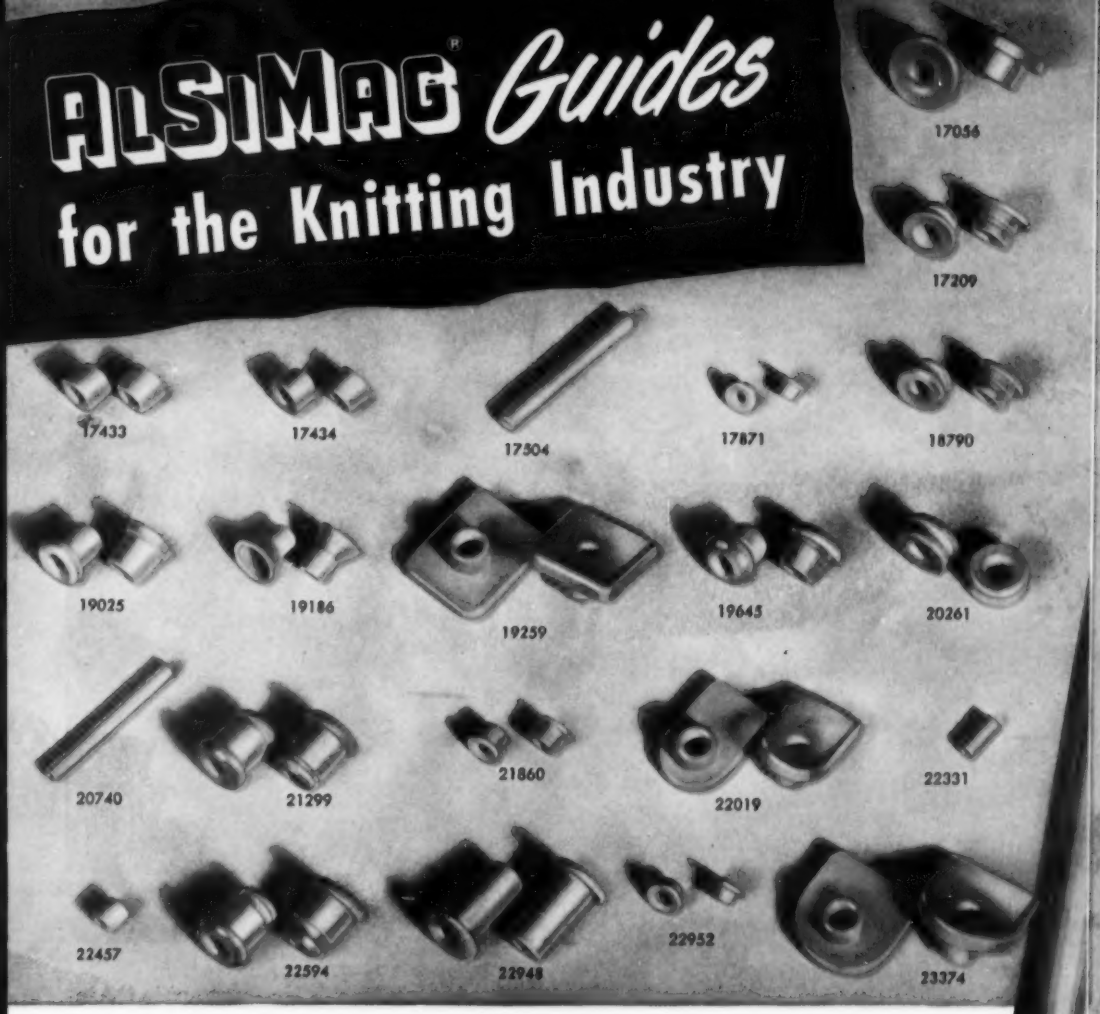
Mr. Steere

tration and coordination of production in the company's mills at Cartersville, Rockmart, and Cedartown, Ga. Mr. Wilder has spent his entire business career with the company's fabric mills.

J. Dan McConnell has resigned as plant engineer at Cone Mills Corp., Greensboro, N. C., to be associated with his own company in the engineering-manufacturing field in another city. Mr. McConnell also plans to operate a consulting engineering service for special problems in the textile industry. * * * **John D. Scott** has retired as superintendent of the Proximity plant, and **Frank Starling** has been named as his successor. * * * The story of **Saul F. Dribben's** 62 years' service with the firm was the subject of an address of Marvin R. Cross, president of Greenwood Mills, Inc., and chairman of the board of

(Continued on page 242)

ALSIMAG® *Guides* for the Knitting Industry



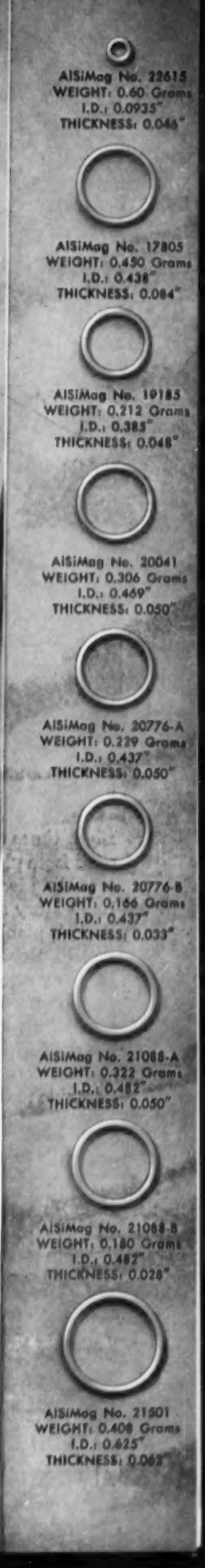
USES

- Yarn Box Eyelets
- Trough Eyelets
- Snapper Eyelets—Tapered, Shouldered, Plate, Grooved
- Oil Cup Eyelets
- Stop Motion Eyelets and Inserts
- Carrier Tubes
- Trough Rods
- Tension Rods
- Tension Rings
- Drop Wire Rings
- Miscellaneous Guides for Special Purposes; for example: inserts for fixtures on Trough Floats

ADVANTAGES

1. *Quality.* Smooth, homogeneous material of great hardness. Uniform physically and dimensionally.
2. *Long Life.* Test these guides on finer denier synthetic yarns at high speed and high tensions. In every case reported to us, AlSiMag guides have shown a material improvement over any former guides used.
3. *Fewer Replacements.*
4. *Uniformity* of guides makes for uniform high quality in finished products.
5. *Lighter Tensions.* AlSiMag guides are available in controlled finishes.
6. *Electrically Conductive* guides (AlSiMag 193) are available to aid in the control of static.

TEST SAMPLES SENT ON REQUEST.



THE MOST COMPLETE SELECTION OF GUIDES EVER SHOWN FOR ALL TYPES OF KNITTING WILL BE FEATURED BY **AlSiMag**

SPACE 28

KNITTING ARTS EXPOSITION

April 29 to May 3

56TH YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A Subsidiary of Minnesota Mining and Manufacturing Company

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SALES ENGINEERS: W. J. Geary, Cranston, R. I. • Dallas, Tex. • J. W. Crisp, Greenville, S. C. • J. S. Gosnell, Livingston, N. J. • W. L. Thompson, Los Angeles, Calif. • St. Paul, Minn. • S. San Francisco, Calif. CANADIAN REP.: Ian M. Haldane & Co., London, Ont. ALL OTHER COUNTRIES: Minn. Mining & Mfg. Co., Internat'l. Div., St. Paul, Minn.

Heard the latest report on Becco Service?

Eight times around the world Becco Engineers travelled from plant and laboratory during the past year providing free technical service to Becco customers. Laboratory and pilot plant work have been done at Becco's plant in Buffalo for 164 additional mill customers. Becco has also given free consulting service to many other mills.

For more than 30 years Becco research has been applied to expanding the usefulness of peroxygen chemicals to American industry.

Becco pioneered in the application of hydrogen peroxide to the textile industry...developed and perfected the Becco type J-box, now dominant in the industry, with 70% more installations than any other.

Among other Becco developments are the Wet J-Box, Non-silicate bleaching, Flash bleaching, 15-minute bleaching and Single-Stage bleaching, each with its specific area of application to mill or bleachery needs. For information on any of these Becco developments, consult trained Becco field engineers or write and we shall arrange for a representative to call at your plant.

BECCO CHEMICAL DIVISION
Food Machinery and Chemical Corporation
Station B, Buffalo 7, New York

Buffalo • Boston • Charlotte, N. C. • Chicago
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CHEMICAL PROGRESS WEEK APRIL 8-12

Progress in Peroxygens

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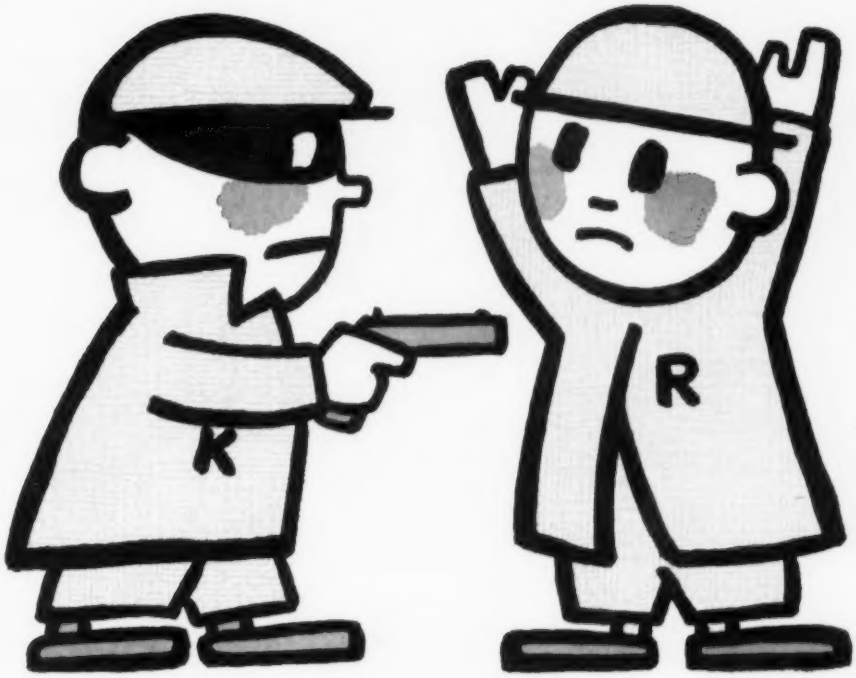
FOOD MACHINERY AND CHEMICAL CORPORATION

FMC CHEMICALS INCLUDE: **BECCO** Peroxygen Chemicals • **WESTVACO** Phosphates, Barium and Magnesium Chemicals • **WESTVACO** Alkalis, Chlorinated Chemicals and Carbon Bisulfide • **NIAGARA** Insecticides, Fungicides and Industrial Sulphur • **OHIO-APEX** Plasticizers and Chemicals • **FAIRFIELD** Pesticide Compounds and Organic Chemicals



they never do anything shady

Gelva KR emulsions on cottons and synthetics eliminate the expense and inconvenience of solvent treatments. They are aqueous dispersions of water-insoluble polymers.

Gelva KR's are polyvinyl acetate emulsions which meet an extremely wide range of application requirements and offer an excellent choice as to viscosity, particle size, film-forming properties, and compounding stability.

Gelva KR's are made and sold only by Shawinigan Resins Corporation. Shawinigan pioneered the production of polyvinyl acetate resins in 1929 and evolved the Gelva KR emulsions in 1944. For continued progress in research, production and application of polyvinyl resins for the textile industry—look to Shawinigan. For full details write Shawinigan Resins Corporation, Department 4204, Springfield 1, Mass.

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GELVA® KR ***emulsions for textiles***

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It's simple as A B C

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to get traditional SOLVAY quality

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Caustic Potash • Hydrogen Peroxide • Ammonium
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NEW #87 AC SHUNT MAGNET FOR THE K-A ELECTRICAL WARP STOP

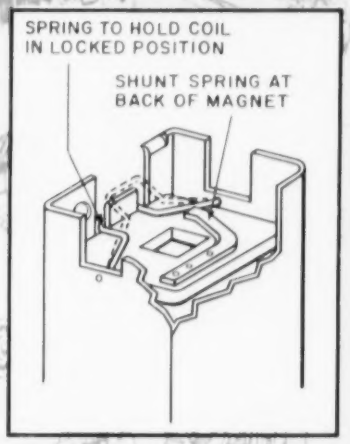
No. 2 of a Series of Improved Draper Repairs and Mechanisms

The #87 AC Shunt Magnet has many improved features and replaces the #83 AC Shunt Magnet. The coil for the #87 AC Magnet is wound on a solid one-piece Nylon bobbin. The shunt contact is firmly attached to it. This complete unit is held securely in position in the case by a locking spring. Uniform settings can be maintained, and replacing of coil is simplified.

TO ASSEMBLE, insert coil in case with contact point of shunt at back of case. Put short end of the Lock Spring in opening at back of case, and then snap it into other opening. This seats and holds coil in place and allows loop of the spring to fall over the ear in side of case. Put armature and plunger assembly in position and slide cover on over Lock Spring.

When repairs are needed, we recommend replacing the #83 AC Shunt Magnet with the #87 AC Shunt Magnet. However, this new coil can be used as a replacement in #83 Magnets by bending the lips on either side of case to hold coil in position.

Coil Replacement for #87 AC Shunt Magnet

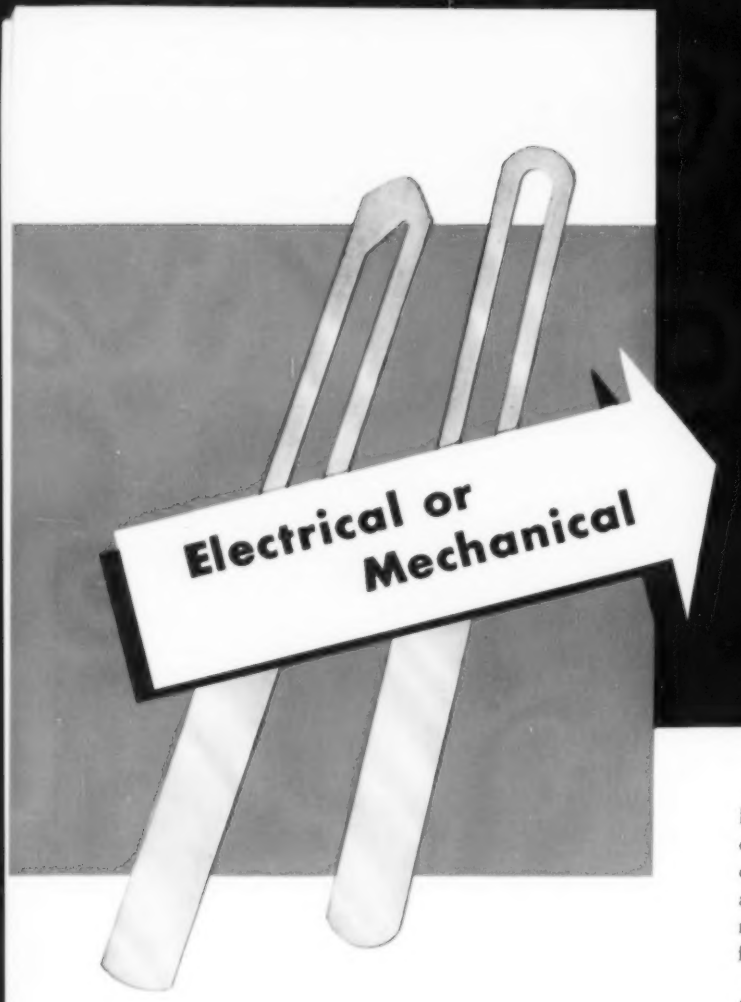


Special materials, superior for this type of electrical unit, are used throughout in the manufacture of the #87 AC Shunt Magnet.

DRAPER CORPORATION

Hopedale, Mass.

Atlanta, Ga. Greensboro, N. C. Spartanburg, S. C.



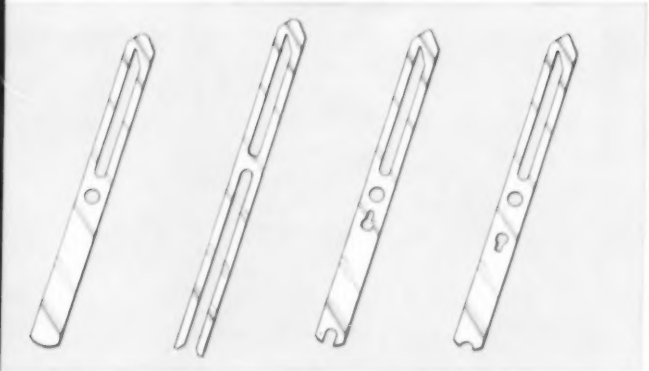
DRAPER
DROP WIRES
MEET EVERY MILL REQUIREMENT

Long experience in satisfying the most exacting demands of delicate weaving enables Draper Corporation to produce Drop Wires of unexcelled finish. K-A Drop Wires are available in a wide variety of styles and weights, ranging from 5 grains to over 150 grains in weight and from .004″ to .045″ in thickness.

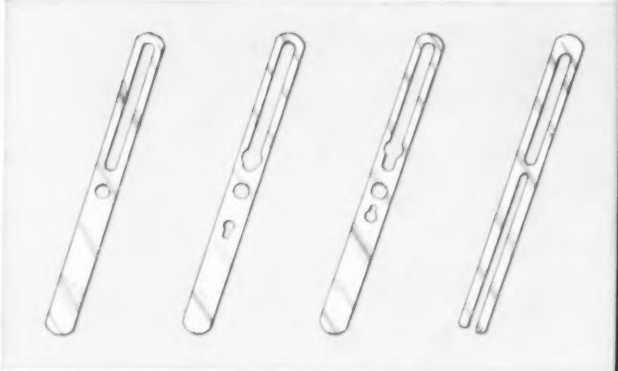
Drop Wires of carbon steel with copper or galvanized finish, or stainless steel Drop Wires can be furnished upon request.

For Drop Wires that offer you maximum service and protection, specify . . . Draper K-A.

ELECTRICAL

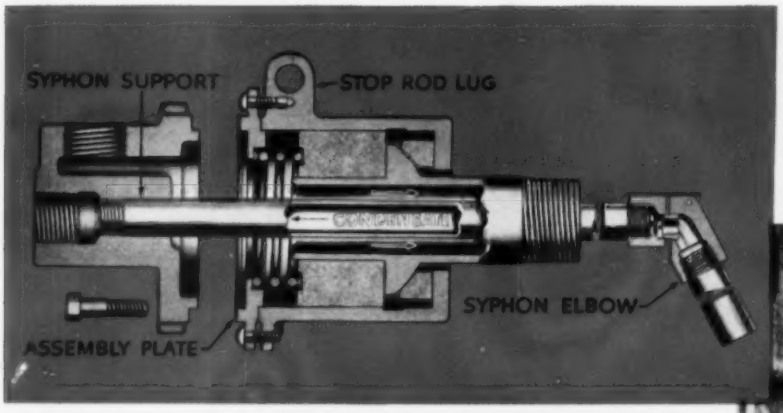


MECHANICAL

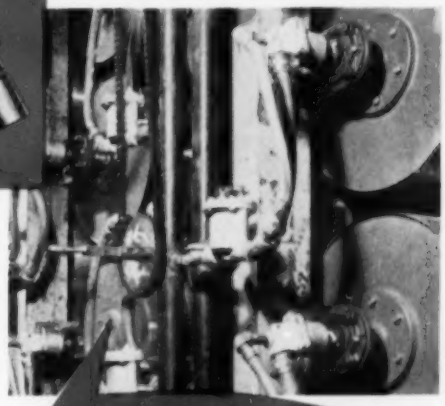


DRAPER CORPORATION

K-A Electrical Warp Stop Division, Pawtucket, Rhode Island



TYPE S-B2P Johnson Joint with Syphon Elbow. This is a completely self-supporting unit; the lug shown on body is for simple stop rod to keep joints from turning. Installation view shows these joints installed on dry cans.



These are the ones to use... { For 23" dia. Dry Cans and 30" dia. Slasher Cylinders

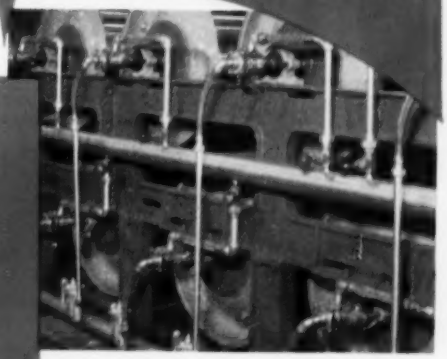
JOHNSON *Rotary Pressure* JOINTS with JOHNSON SYPHON ELBOWS

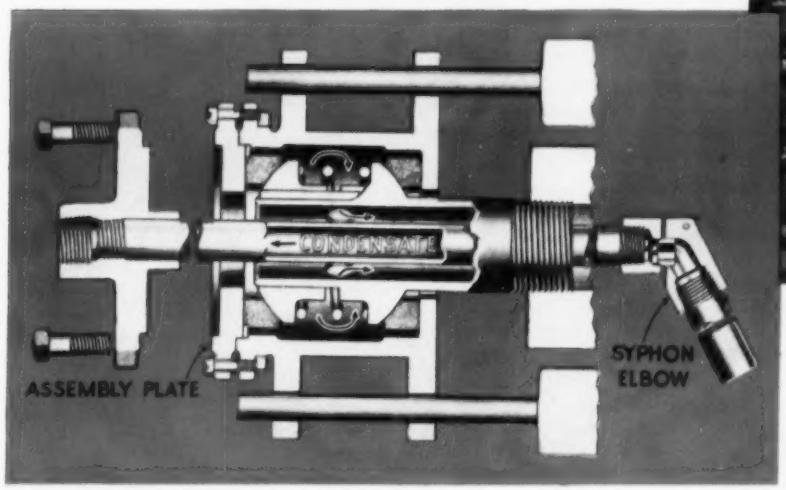
These two types of Johnson Joints have proved particularly suited for service on the newer 23" diameter Dry Cans and 30" diameter Slasher Cylinders. The Type S is completely self-supporting; the Type LJ is rod-supported from bosses provided by machinery manufacturers. Both types are completely packless, need no lubrication or adjustment.

Pictured with each joint is the Johnson Syphon Elbow, successor to the unwieldy curved syphon pipe. It hinges to pass right through the joint, seats of its own weight when in position, permits the use of two simple straight pipes for the syphon line. Special assembly plate is provided on joints so the head and syphon pipe can be removed without disassembling the joint.

Here's our offer—We will gladly furnish a pair of Johnson Joints for 90-day trial in your own mill, without cost or obligation to you. There are Johnson Joints for all operating conditions.

Write for full information





TYPE L-J5P Johnson Joint with Syphon Elbow. Has lugs on body for support rods, which carry all weight of body and connections, permit rotating assembly to "float" freely inside. Steam inlet is in side of body as shown in installation view of joints on slasher cylinders.

THE JOHNSON CORPORATION

815 Wood Street, Three Rivers, Michigan

Rotary Pressure Joints • Direct Operated Solenoid Valves

6 TIMES A YEAR is only buffing needed for this Tennantized weave room floor.

3 REASONS WHY YOU CAN NOW

Save 30% to 60% in Floor Maintenance Costs

Important NEW improvements in the TENNANT System now make it possible—a saving of 30% to 60% in floor care costs annually, compared to 5 years ago. Here's why, as reported by many mills:

1. You use 50% less manhours today in cleaning a TENNANT-treated floor because its dirt-resistance has been almost tripled. You buff only 1/5 to 1/10 as often . . . need only a dry mop for daily cleaning.

2. Floor seals last 4 times longer today because they are more wear-resistant, stand up better under oil, grit and dirt. Bright, lustrous finish is easily renewed without need for sanding.

3. You save time in problem areas, like weave rooms, with new TENNANT materials that resist humidity, starch, discoloration, etc. Saves manhours (see photo above). *Write today for details; ask for estimate of savings possible in your mill.*

TENNANT
ESTABLISHED 1870

G. H. TENNANT CO.
735 North Lilac Drive
Minneapolis 22, Minn.

FLOOR MAINTENANCE SYSTEM

(Advertisement)

Questions & Answers on... FLOOR MAINTENANCE

Have floor maintenance costs gone up in the last 6 years?

No. They are 30% to 60% less today than in 1951, according to mills using the Tennant System. New seals last 4 times longer, have a better gloss, are easier to clean. Mechanical buffing (dry cleaning) is needed only about 1/10 as often as before. Modern floor care methods are very economical.

•

How often is sanding necessary?

Sanding is now a one-time job with today's maintenance techniques. A correctly sealed and finished floor, properly cleaned and renewed, should never require resanding.

•

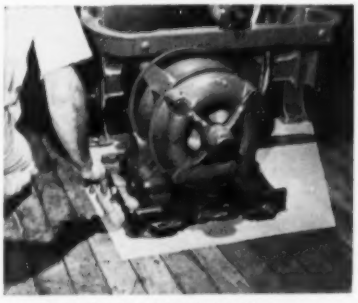
How frequently should our weave room floors need dry cleaning?

Today, rapid dry mop sweeping is sufficient for about 95% of all daily maintenance on correctly sealed floors. As a result you need not dry-clean most weave rooms oftener than at 2-month intervals.

•

How should floor care be scheduled?

Use a master chart showing each department and recommended finishing and maintenance techniques. An attractive 16 x 20 chart, "Guide to Textile Floor Maintenance" is available free from the Tennant company.

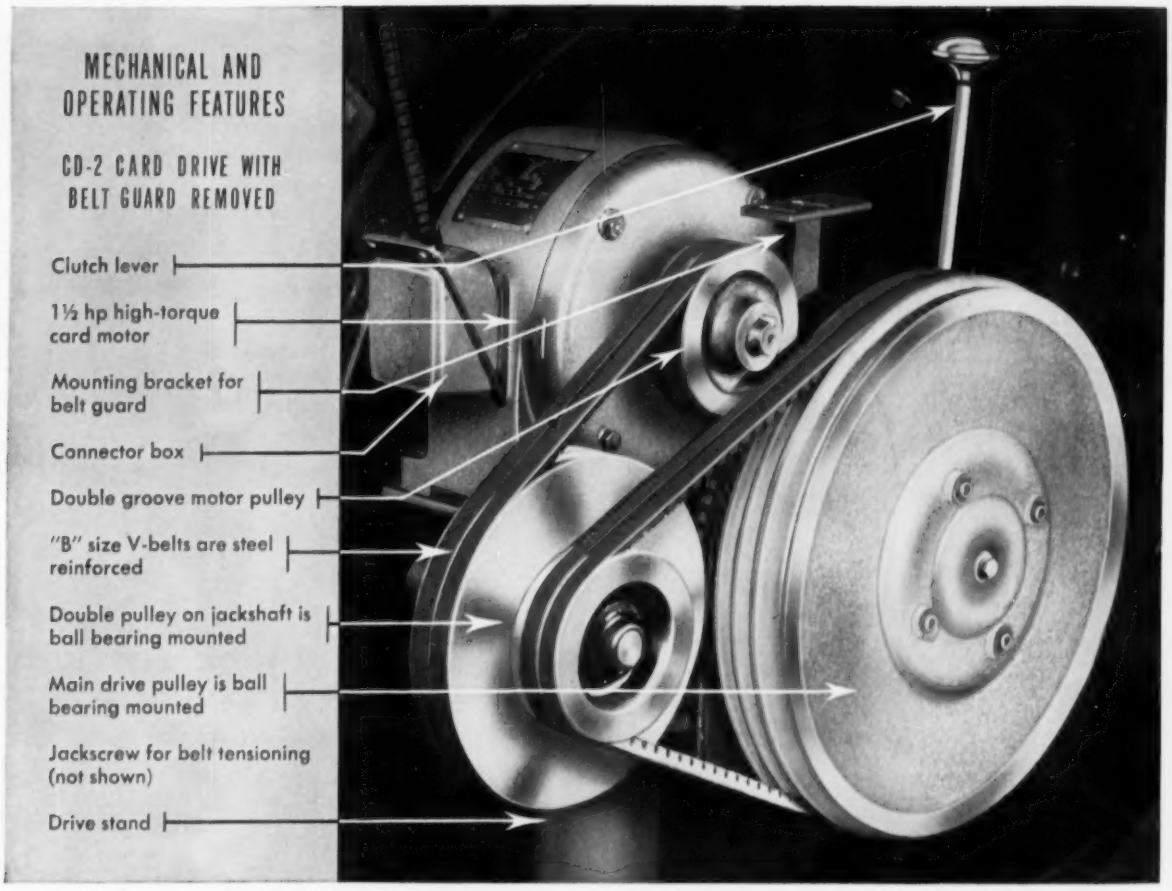


Special paint hides dark, oily areas.

What treatment is best for oil-soaked areas under looms, etc.?

Use an attractive masking paint like Tennant No. 201 Oil-Cover Paint. It dries in about 30 minutes, resists oil discoloration, cleans easily. Photo shows typical use around loom motor. Colors: gray, tile red, yellow.

For FREE chart and other data, write G. H. Tennant Co., 735 N. Lilac Drive, Minneapolis 22, Minn.


MECHANICAL AND OPERATING FEATURES
CD-2 CARD DRIVE WITH BELT GUARD REMOVED
Clutch lever
1½ hp high-torque card motor
Mounting bracket for belt guard
Connector box
Double groove motor pulley
"B" size V-belts are steel reinforced
Double pulley on jackshaft is ball bearing mounted
Main drive pulley is ball bearing mounted
Jackscrew for belt tensioning (not shown)
Drive stand

Only the all-new CD-2 Southern States Card Drive offers all these features

THIS WE BELIEVE: The CD-2 individual Card Drive is the simplest, safest, and most efficient drive on the market today. It combines into one unit the features most wanted by mill men when specifying a drive for cotton cards. Here is why:

Finger-Tip Control. No changes in operating procedure. The unit is controlled by a simple clutch lever in both starting and hand stripping.

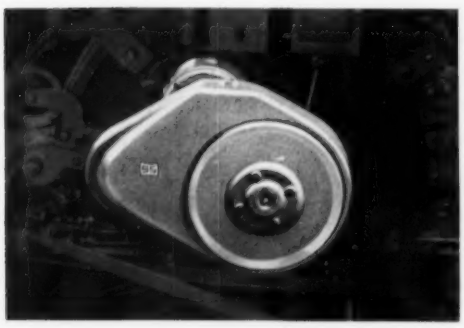
Full Speed in Seconds. A 1½ hp high torque card motor smoothly brings the card into full operation, seconds after the clutch is engaged.

Safety Engineered. All belts and moving parts are covered. Starting and idling is accomplished by the clutch lever. Stripping is done in the conventional manner.

Rugged Construction. The entire unit is built for heavy-duty service: steel main stand; cast iron jackshaft bracket and main pulley; cast aluminum cover.

Easy Installation. Fits any cotton card. Minimum number of holes to drill in frame. Drive pulley, collar and clutch are preassembled and slip on shaft using existing keyway.

Your Southern States representative will give you all the facts, or you may write direct to our home office. Ask for Bulletin 301-a.



SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

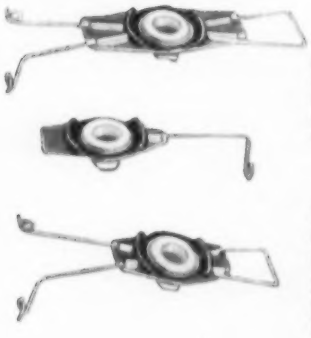
COMPLETE CONTROL

of New Fibers and Filaments with

HERR

Special Conical Rings and Special Flyers

See us at our Booth No. 38 & 39 —Knitting Arts Exhibition
Hyatt B. Atwood
W. W. Woodard
Robert M. Leach
James McLean



HERR Flyers produce light tensions at high speeds, perfectly balanced for accurate yarn control and reduced vibration.

There is a HERR Conical Ring for the spinning or twisting of any yarn.

Having problems with new fibers? Don't waste time experimenting. New physical characteristics of the fibers require changes in the processing equipment to attain best results. Call Herr for the best Conical Ring and Traveler combination to give you complete control of new fibers and filaments. Write for information today!

HERR Manufacturing Company, Inc.
310 Franklin St., Buffalo, N. Y.

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON, ORLON, FIBERGLASS AND BLENDED YARNS OF ALL TYPES

Stantex® Oils Find Many Uses in Throwing

BY R. A. JAEGERS
SALES, SUNBURY, PA.

There is a STANTEX oil to meet practically every requirement a throwster has. For example, STANTEX 1060 is an outstanding all-purpose coning oil for nylon yarns providing yarn relaxation, easily controlled oil pickup, low yarn running tensions, good cone buildup, and high knitting efficiency. In addition, it preserves the whiteness of yarns and is easily scoured out in dyeing.

STANTEX 1063 is an oil with comparable properties and is particularly recommended for Ban-Lon* yarn.

One of our most versatile oils is STANTEX 1032 which is used on 40 and 50 denier pre-shrunk seamless welt yarns with excellent results. If your knitters are having trouble with crow's feet and improper tension in the welt, try STANTEX 1032.

When applied to dyed acetate and nylon yarn at coning, STANTEX 1032 provides better color value, as well as lubricity and anti-static qualities.

STANTEX 814 and STANTEX 1243 are anti-graphite oils for the lace trade which have done a superior job for several years. STANTEX 814 is best suited for coning large packages.

STANTEX N.S.P. 125 and STANTEX N.S.P. 127 have been producing excellent results on hosiery yarns for many years and can be considered the pioneer oils in the nylon throwing trade for oiling over PM-90 Size.

*T. M., J. Bancroft & Sons

Standardgrams

Standard Has What It Takes To Assist the Hosiery Dyer

Standard has many wet-processing chemicals and auxiliaries for the dyer. This report, however, will be restricted to those products used primarily by dyers of knitted fabrics. Probably one of the biggest developments in the tricot industry in years has been the advent of the pressure dye machine. We have progressed also by developing several new products to be used in this process.

STANDAPON 95 BM is an easily soluble, nonionic detergent with low-foaming characteristics. It can be used in the single bath method, as well as in a separate scour. STANTEX KBM is an anionic dyeing assistant, wetting, dispersing and leveling agent which can be used in the single or two-bath method.

STANTONE X-6 is a non-yellowing substantive softener and anti-static agent having minimum effect on light fastness and shade of dyed fabrics.

STANDAFIN® R-35 is a thermoplastic resin dispersion for building hand and body and is recommended for both hosiery and tricot finishers.

Several STANTEX oils serve double duty being used by both throwsters and dyers. STANTEX 1060 is applied in coning to dyed Fluflon** and Superloft** yarns and this greatly improves the knitting qualities of the yarn.

STANTEX 1032 is applied to dyed acetate and nylon yarns in the last rinse after dyeing providing an excellent finish for the yarn. This is especially the case in decorative yarns where the finish retards the pickup of needle and machine oils in knitting, thus making the scouring operation much easier.

Our technical representative will be glad to discuss with you these and other Standard products at your convenience.

**Under license, Universal Winding Co.

A Proven Product for Tricot Knitter

The application of STANTEX 814 to tricot yarns in warping has the following advantages:

1. A better, more uniform beam
2. Edges of yarn on beam are straighter
3. Control of static
4. Reduces needle and guide wear
5. Facilitates removal of soil and dirt in scouring.

STANDARD CHEMICAL PRODUCTS, Inc.
HOBOKEN, NEW JERSEY · CHARLOTTE, NORTH CAROLINA
CHATTANOOGA, TENN. PATERSON, N. J. SWANSEA, MASS. SALISBURY, N. C.
SUNBURY, PA. SACRAMENTO, CALIF. GREENSBORO, N. C. GREENVILLE, S. C.

THEY FIND A NEW MARKET

...BY PACKAGING

Packaging has opened up a new market for this towel manufacturer—the gift market. Merchandising a set of terrycloth place mats, towel, and apron together in a display carton, he presents Kitchen Terries as a bright and attractive gift. In a sturdy, eye-catching Framevue folding carton, overwrapped with transparent plastic film, protected from shop wear, the terries are displayed perfectly, and practically sell themselves.

MORE PROFITS THROUGH PROGRESS IN PACKAGING

CONTAINER CORPORATION OF AMERICA

38 South Dearborn Street, Chicago 3, Illinois, and 42 other cities

Corrugated and solid fibre shipping containers, folding cartons, flexible packaging, fibre cans

COMPARE THESE TYPICAL VERSAMATIC PERFORMANCE FIGURES WITH YOUR CURRENT DRAWING FRAME PRODUCTION...

Performance which clearly indicates

SACO-LOWELL'S *NEW*

VERSAMATIC*

DRAWING FRAMES

belong in your mill

Mill	A	A	B	C	C	D	D
Stock	Carded	Carded	Combed	Combed	Combed	Combed	Combed
Process	1st Process	2nd Process	1st Process	1st Process	2nd Process	1st Process	2nd Process
Model Versa-matic	4 Over 5	4 Over 5	3 Over 4	3 Over 4	3 Over 4	3 Over 4	3 Over 4
Sliver Fed	52.5 gr.	54 gr.	55 gr.	120 gr.	60 gr.	62 gr.	55 gr.
Ends Up	8	8	8	4	4	4	4
Speed	264 ft./min.	264 ft./min.	260 ft./min.	216 ft./min.	216 ft./min.	250 ft./min.	250 ft./min.
Sliver Delivered	54 gr.	56 gr.	55 gr.	60 gr.	60 gr.	55 gr.	55 gr.
Tester	Saco-Lowell	Saco-Lowell	Saco-Lowell	Brush	Brush		
Variation	18%—19%	18%—19%	10%—13%	14%—16%	11%—13%		
Efficiency	92%—95%	92%—95%				82%	82%
Deliveries	16	16	60	32	32	12	12
Deliveries/Operator	32	32	30	32	32	24	24
Can Size—Back	15" x 42"	15" x 42"	15" x 36"		14" x 36"		15" x 36"
Can Size—Front	15" x 42"	15" x 42"	15" x 36"	14" x 36"	14" x 36"	15" x 36"	15" x 36"
Yards/Can	3800 yds.	3875 yds.	3300 yds.	2850 yds.	2850 yds.	3500 yds.	3500 yds.
Pounds/Can	29.3 lbs.	31.0 lbs.	25.9 lbs.	24.4 lbs.	24.4 lbs.	27.5 lbs.	27.5 lbs.
Draft	7.77	7.71	8.03	8.03	6.00	6.75	6.00
Pounds/Man Hour	1250 lbs.	1270 lbs.	1105 lbs.	1070 lbs.	1070 lbs.	772 lbs.	772 lbs.

6 STANDOUT VERSAMATIC FEATURES

- Front roll delivery of 250 to 300 feet per minute under average mill conditions.
- Sliver regularity is equal to or better than that obtained from conventional frames operated at low speeds. C.V. generally about 2.75% to 4.00%.
- Has patented automatic self-cleaning top and bottom clearers with built-in static conductors.
- Regular mill runs show an efficiency up to 93%.
- Anti-friction bearings throughout the frame.
- Proven Shaw principle drafting elements can be 3 over 4 or 4 over 5.

*VERSAMATIC DEFINED

VERSAtile . . . adaptable to all fibres, both synthetic and natural, from ¾" to 3".

autoMATIC . . . in all ways except for creeling and doffing.

Versamatic gives highest production of quality sliver by every standard — per delivery — per man hour — per square foot of floor space — per horsepower. For further information and demonstration call your nearest Saco-Lowell Office.

SACO-LOWELL SHOPS

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N.C. Sales Offices CHARLOTTE GREENSBORO GREENVILLE ATLANTA

To manufacturers, converters, cutters, wholesalers and retailers:

LET'S GET THE FACTS STRAIGHT ABOUT MODERN RAYON

Many of the newer synthetic fibers which rocketed to fame in a flurry of claims, a few years ago, have recently suffered a good deal of debunking in trade and consumer circles.

This is hurtful to all of us in the apparel and home furnishings fields. It throws a smoke screen of doubt over the technical improvements and consumer benefits of *every* fiber—including rayon, the world's oldest, most used and *most improved* man-made fiber.

1957 Avisco rayon is not the rayon we all knew in 1945, in 1950—even in 1955. Intensified laboratory research has greatly improved it both in *structure* and in *use*.

It is stronger and vastly more versatile.

It can be kitten-soft in sterile surgical dressings or tiger-tough in tires beneath a truckload of crushed rock.

By itself, rayon can be silky, woolly, cottony or linen-like. In blends, it contributes its unique ability to take and hold gorgeous colors, absorb perspiration, and cut and drape and shape and stitch without seam slippage.

Improper *use* of rayon is swiftly disappearing. Remarkable new finishes, applied properly, add greatly to its superb washability, colorfastness, luster and comfort. The Avisco Integrity Program sets the standards for proper processing to meet end use requirements, and makes it worthwhile for everyone in the trade to observe these standards.

Many important cutters are adding the Avisco® Integrity Tag to apparel and home furnishings made from qualified fabrics. Many retailers find that this added assurance of quality rayon sells more goods and *keeps* them sold.

AMERICAN VISCOSE CORPORATION, 350 Fifth Ave., New York 1, N. Y.

Terrell's COMPLETE
BOBBIN CLEANING AND HANDLING SYSTEM

OFFERS
Unusual Returns
ON THE INVESTMENT

BOBBIN BOX HOIST lifts and dumps **full boxes** of uncleaned bobbins at the machine feeding **level.**

TERMACO BOBBIN FEEDERS make it possible for one operator to run two bobbin cleaning machines.

TYPE L BOBBIN CLEANING MACHINES efficiently remove feeler waste without possibility of damage to bobbin or bobbin finish.

TERMACO BOBBIN SELECTORS separate cleaned and uncleaned bobbins.

TERMACO CONVEYOR SYSTEMS carry cleaned bobbins to storage bins, winder hoppers, or any desired location.

If you would like more detailed information please contact . . . . . .

THE

Terrell

MACHINE COMPANY, INC.
CHARLOTTE, N. C., U. S. A.

METRO-ATLANTIC

Chemicals, Dyes & Intermediates

Manufacturing Plant and Main Offices Centredale 11, Rhode Island Offices, Service Laboratories and Warehouses Greenville, S. C., Fairlawn, N. J.

A Digest of Late Developments in Modern Textile Research and Application at METRO-ATLANTIC, INC.

NEW LABORATORY EXPANSION AT METRO-ATLANTIC

In addition to the expansion of the Chemical Research Laboratory and the Textile Auxiliary Application and Service Laboratory, Metro-Atlantic has built an ultra modern Analytical and Control Laboratory. The space formerly occupied by the Control Laboratory has now been built into a new and up-to-date Dyestuff Application and Service Laboratory. This expansion, and addition of new laboratories increases Metro-Atlantic's laboratory facilities by 300%. This is all in line with Metro-Atlantic's policy of expanding its quality line of fine textile chemicals under sound control systems, and giving you, our customer, the best in technical assistance.

(1) IMPROVEMENTS FOR WETTING OUT IN CAUSTIC SOLUTIONS

(Mercerizing, plissé work and shrinking)

The efficiency of caustic in most of its uses is greatly enhanced by increasing its wetting properties. This has created a demand by the trade for more highly efficient wetting agents in caustic solutions. The improvement in caustic wetting has increased the efficiency and improved the qualities of mercerizing. It has speeded up the plissé operation to give fuller and more durable caustic plissés with sharper lines, and has increased the shrinking properties in caustic processes many times. When mercerizing with between 40° and 60° Tw. caustic, it is recommended that .5% Merpene Special be used in the bath. This product maintains a clear caustic solution with no settling out or scumming of the wetting agent on the surface. It maintains efficiency on standing where other mercerizing penetrants would not be as efficient, and it increases the quality of greigh mercerization to a great extent. For better wetting in the plissé operation, Metro-Atlantic has developed Merpene HTW, a highly stable, fast acting wetting agent in caustic solutions ranging from 60°Tw. to 90°Tw. Merpene HTW stands high and low temperatures and maintains efficiency through long production runs.

Merpene HC is of a different chemical nature than the two Merpenes discussed above and it is effective at lower caustic concentrations than our other Merpenes. This product is an effective wetting agent in caustic solutions ranging from 10°Tw. to 50°Tw. It is recommended for use in caustic shrinkage processes at .5% concentration. It is also effective in low mercerizing strength caustic. The above three caustic wetting agents cover practically the entire range of caustic solutions for most efficient processing.

(2) MORE ECONOMICAL METHODS OF PRODUCING QUALITY WASH AND WEAR COTTON FINISHES

The great demand for wrinkle resistant cottons and minimum care cotton finishes has stimulated a great deal of research and development in the field of cotton finishing. The more expensive melamine finishes were first introduced. These were followed by the use of less expensive cyclic urea resins. In the development of the Emboset series of resins, careful watch was kept on those modifications that would give highest quality minimum care cotton finishes at lowest cost. From this work, Emboset BCL was developed and it was found that in combination with Ranedare S (a silicone water repellent) and a small amount of thermoplastic resin, that a very high quality, low cost cotton minimum care finish was obtained. This combination produced very high crease resistance with higher tensile strength properties and with equal durability to what had been previously accomplished. The following formula is suggested:

8% Emboset BCL
3% Ranedare S
1% Ranefix SG
1% Catalyst Z
5% Acrylic resin emulsion

These products are easily mixed in the order they are given into water, and the goods are processed by padding, frame drying at 250°F, followed by a cure at 310° to 330°F. This is followed by a light wash and frame drying. Many modifications of the above formulation can be made to suit specific plant conditions, machinery and fabrics.

For finishing where very low chlorine retention is a factor, it is recommended that Emboset Z be used to replace the Emboset BCL.

(3) NEW RESINS FOR NYLON AND ACETATE LACE FINISHING

Firm, resilient finishes on nylon and acetate laces, as well as marquisettes, have been in demand for quite some time. Here again, lowering the cost, maintaining or raising the quality, has been a research problem. From a great deal of laboratory work and plant trials, it was found that Emboset ACL would produce the resilient, stable and firm finish required on these fabrics at a much lower cost. For nylon and acetate laces, it is recommended that the lace be padded through a 5% solution of Emboset ACL in combination with a small amount of Atco Rezsoft and Catalyst AN.

NEWS LETTER

Canadian Branch—Granby, Quebec New York Sales Promotion Office—10 East 39th Street Imported Dyestuff Specialties Farbwerke Hoechst A.G. West Germany

For nylon marquisettes, a 20 to 50% solution of Emboset ACL in cold water, in conjunction with .5% Atco Catalyst A is recommended. These formulas produce a highly resilient and desirably firm, durable finish. Many modifications in the above formulations can be made to suit any specific required hand.

(4) MINIMIZE CORROSION, SPATTERING AND CLO, ODOR IN SODIUM CHLORITE BLEACHING

Sodium chlorite has been used as a very powerful chlorine dioxide bleach for a great many years with very excellent and efficient results. The big problem in the use of this type of bleach has been corrosion, even corrosion of stainless steel. Spattering in handling has also been a headache and a danger. Atco Sodium Chlorite alone reduces corrosion and practically eliminates spattering. Two new bleaching assistants are now recommended for use in sodium chlorite bleaching. Atco Bleaching Assistant HV suppresses the generation of chlorine dioxide so that an effective and efficient bleach can be obtained without the health hazard of inhaled gases. The addition of Atco Bleaching Assistant HV has no anti-corrosive effect. It is therefore recommended, where corrosion is a major problem, that Bleaching Assistant HC be used to practically eliminate the corrosion of stainless steel in all chlorite and chlorine dioxide liquors. This all means that now you can bleach with sodium chlorite and control offensive odors as well as the corrosion of equipment.

(5) METRO-ATLANTIC'S NEW SILICONE AUXILIARY PRODUCTS FOR NEW TEXTILE USES

Silicones in the textile industry have been widely accepted and are recognized as high quality water repellents. They are also establishing various other end uses in textile finishing. Metro-Atlantic has kept abreast of all developments in silicone chemistry and from this our research department has produced a line of ready to use silicone products for various textile applications. The first of Metro-Atlantic's developments was in the water repellent field, and a product was produced under the name of Ranedare S. This product, with a specifically developed catalyst, Ranefix SG, produces one of the finest and most durable silicone water repellent finishes on the market and it is marketed with the only insurance policy garment tag and protected program in the textile industry.

A second major market for silicones has been in the field of textile softeners which produce a highly durable and desirable softness with the silicone surface feel. These new softeners have found a very definite place in wash and wear cotton finishes and in general resin finishing. Atco Softener SI is Metro-Atlantic's silicone softener developed for the textile trade.

Recent research has also led to the development of solvent soluble water repellents, more efficient defoamers and other silicone based materials which extend silicone uses from the textile trade into furs, leather and paper. The potential for the development of many types of durable finishes that do not require curing is promising.

This greatly expanding field of chemistry is a potential source of many new chemicals which are currently being investigated by Metro-Atlantic's research department.

For further and more detailed information concerning the products discussed in this advertisement, please write to your closest Metro-Atlantic Textile Development and Service Laboratory

Metro-Atlantic, Inc.
Centredale 11, R.I.
Greenville, S.C. Fairlawn, N.J.
Metro-Atlantic Canada Ltd
Granby, Quebec

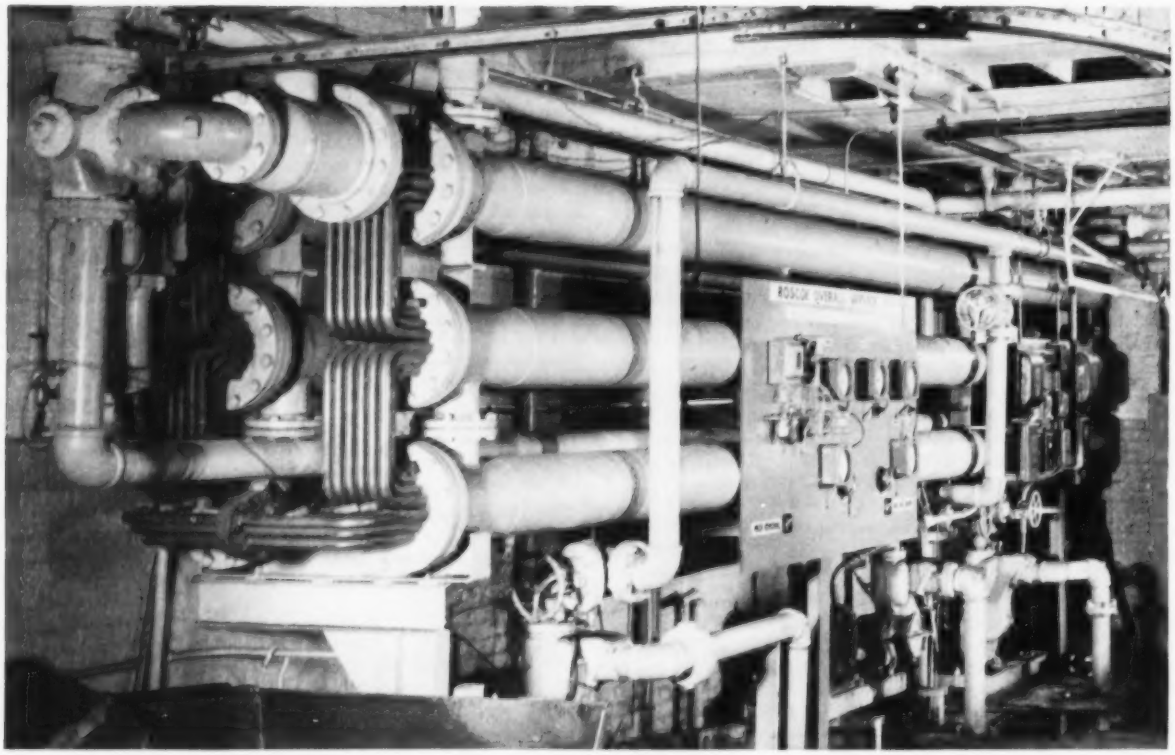
Metro-Atlantic's New Dyestuffs Application and Sales Service Laboratory.

Metro-Atlantic's New Analytical and Product Control Laboratory.

Only Bready Systems of Heat Recovery Give

CONTINUOUS MAXIMUM HEAT RECOVERY

From Waste Water



THE high efficiency of Bready Systems of Heat Recovery is due to their ability to STAY CLEAN. Bready Systems are cleaned *automatically* by timed backflushing — *guaranteed* not to plug or stop up. There is no pit to shovel out — no doors or ports to unbolt — no manual rodding of tubes — no down time.

Bready Systems of Heat Recovery are successfully being put to severe heat recovery conditions where lint and oil deposits would clog and substantially reduce the heat recovery of any ordinary heat exchanger in minutes.

Solids in the waste water are flushed out automatically. There is no costly shutting down of the system for manual cleaning. Occasional chemical cleaning by mechanical recirculation keeps these systems paying off in highest fuel economy and boiler h.p. recovery year after year.

Without obligation, we invite you to find out what savings would be obtained in your own plant. Write, wire or phone Ludell today for more information or a free plant survey.

Ludell *Manufacturing Company*

5200 WEST STATE STREET DEPT. TI. MILWAUKEE 8, WISCONSIN

Representatives in the United States, Canada and Alaska

MANUFACTURERS OF BREADY SYSTEMS OF HEAT RECOVERY, BREADY SYSTEMS OF HOT WATER HEATING AND WHEELER SELF-UNLOADING WASHER

To the Queen's Taste

Queens, kings and all your customers, royal and otherwise, are demanding color fast fabrics nowadays.

Why risk enraging your customers by finessing with colors that may disappoint — when it's so easy to insure profits by specifying

ALTHOUSE Dyes for Colorfastness
and
ALTHOUSE Special Dyeing Techniques
for
Cottons, Rayons, Nylons and Blends

You are always sure of holding trumps, when you use these famous Althouse Dye Specialties:

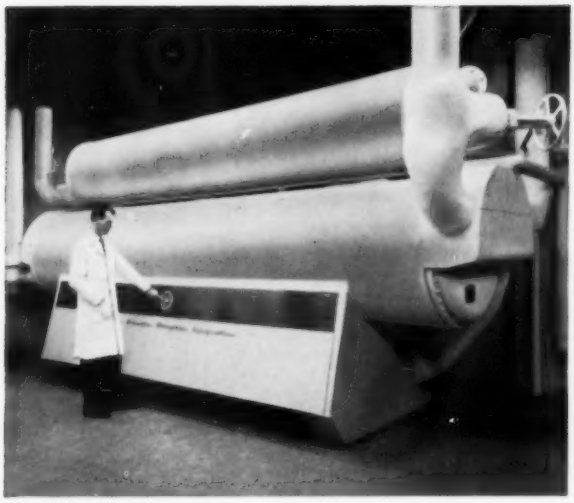
Superlitefasts	Nylanthrenes
Azoanthrenes	Nydyes
Supernylites	Sol-Aqua-Fast

Whenever problems develop, Althouse researchers will help you find the winning combination of formulation and dyeing techniques to assure lasting color beauty. Althouse knowhow, based on more than 40 years of creative research, assures quality performance.

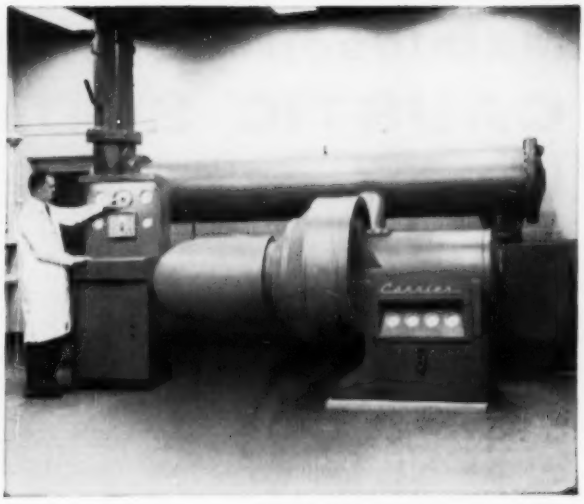
Which is the best way to air condition a mill?

It depends on your mill. Its size, its shape, the fibers you handle, and the processes you use are all important. And if you want control of temperature as well as humidity, which refrigeration is best? Carrier sells many types of air conditioning and refrigeration. For example, one of the four types of refrigeration shown on the opposite page is best for your mill. Only Carrier makes all four types and is able to give you an impartial recommendation. For complete information, call your nearest Carrier office. Or write Carrier Corporation, Syracuse, New York.

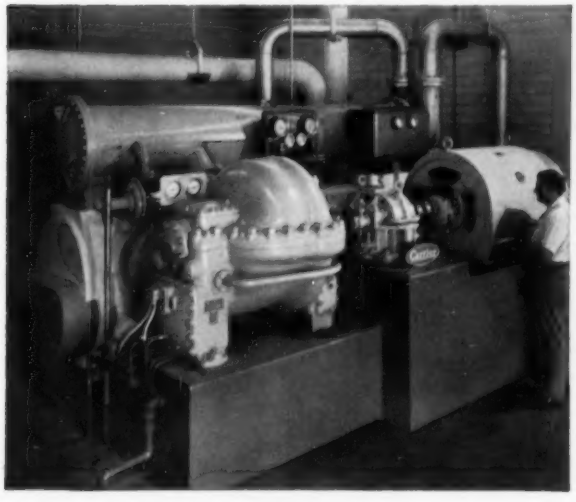
Carrier



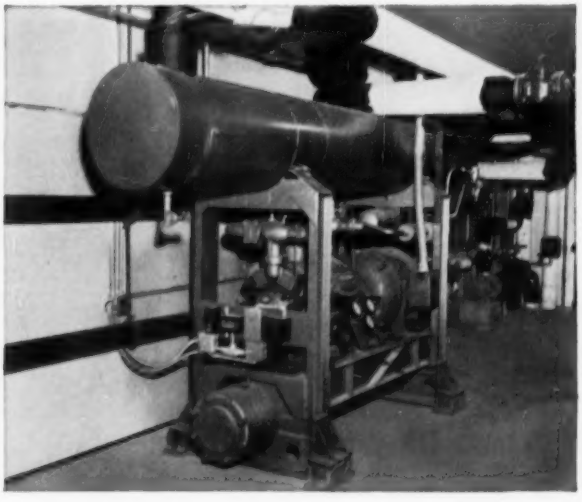
If you have low-cost steam, Carrier's new Absorption Refrigerating Machines may be best for you. They cool water for air conditioning by using heat energy derived from waste heat or hot liquids. If you have fluctuating loads, they will operate automatically from full load to zero capacity 24 hours a day, seven days a week, dependably and efficiently. Carrier's new Absorption Machines are available in capacities from 60 to 700 tons.



If you have low-cost power, the new Carrier Hermetic Centrifugal Refrigerating Machines may be your best answer. They're the only hermetics with such advanced features as a refrigerant-cooled motor, hydraulic-powered capacity vanes, and electronic self-contained controls for completely automatic operation. Their compactness and light weight minimize space and structural requirements. Capacities range from 90 to 1000 tons.



If you have heavy air conditioning requirements, Carrier's famous external drive Centrifugal Refrigerating Machines undoubtedly are best for you. With capacities to 4000 tons, they can provide accurate, automatic control of temperature and humidity in the largest mills. Thousands have been giving dependable service for decades in mills of every size to score top performance records. They are adaptable to many special drives.



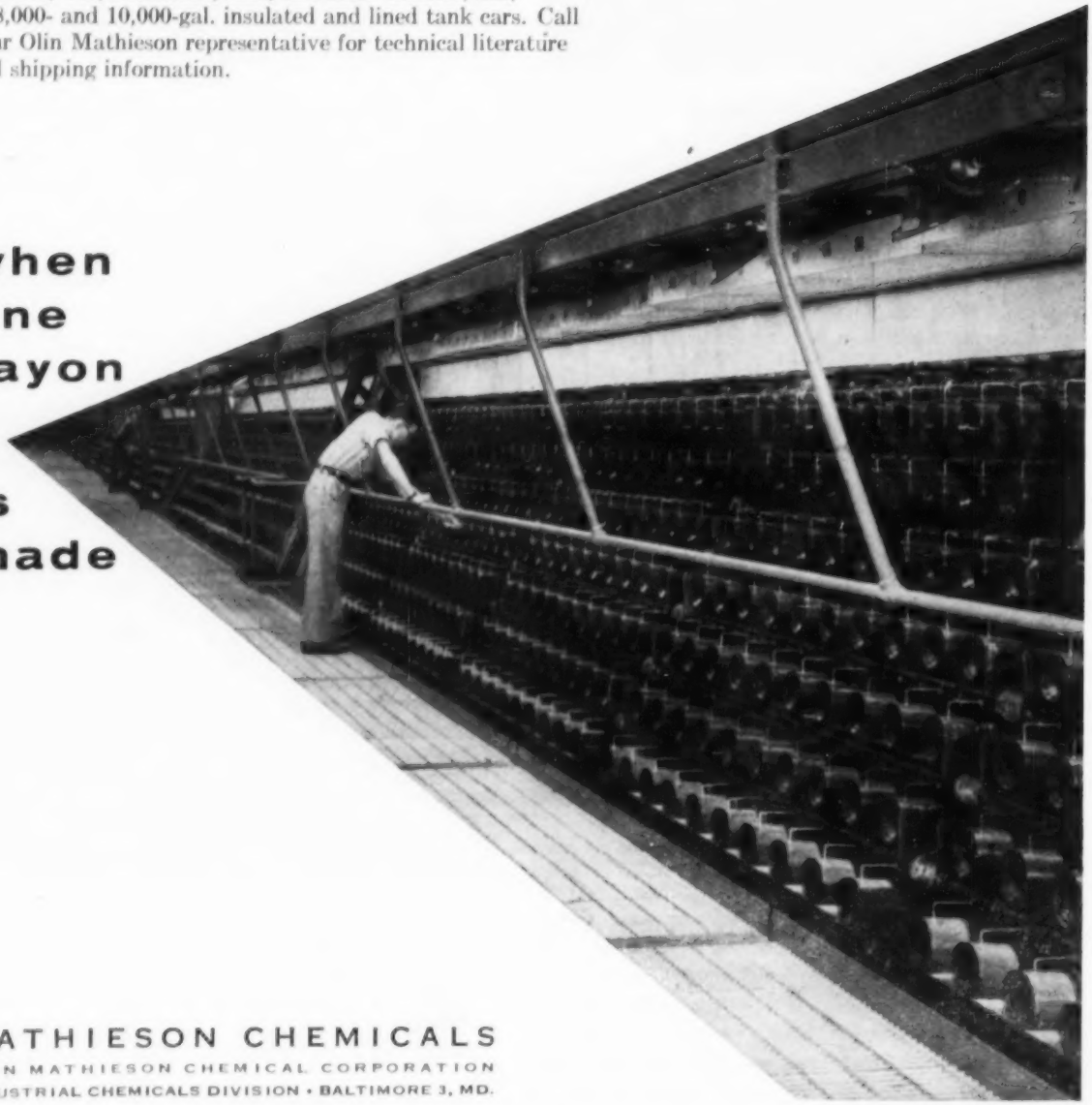
If your mill is small or if you have limited air conditioning requirements, Carrier Reciprocating Water Cooling Machines may be ideal for you. They're completely "packaged" with compressor, cooler, condenser and controls co-ordinated in design by Carrier engineers. Installation costs are lower and operating performance is more efficient than units assembled from unrelated components. Available in capacities ranging from 3 to 200 tons.

Mathieson
CAUSTIC SODA
is there

Four plants from the Great Lakes to the Gulf deliver Mathieson Caustic in the quantity and quality specified, shipped on precise schedules to meet your operating requirements.

For rayon, special grades and high purity caustic are available. Caustic shipments come from Niagara Falls, N. Y., Saltville, Va., McIntosh, Ala., and Lake Charles, La., in 8,000- and 10,000-gal. insulated and lined tank cars. Call your Olin Mathieson representative for technical literature and shipping information.

when fine rayon is made



MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

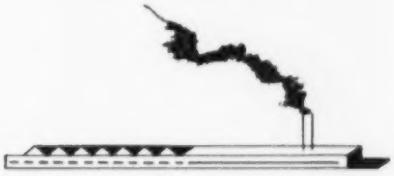
4685

MATHIESON

INORGANICS: Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Potash • Caustic Soda • Chlorine • Hydrazine and Derivatives • Hypochlorite Products • Muriatic Acid • Nitrate of Soda • Nitric Acid • Soda Ash • Sodium Chlorite Products • Sulphate o Alumina • Sulphur (Processed) • Sulphuric Acid

ORGANICS: Ethylene Oxide • Ethylene Glycols • Polyethylene Glycols • Glycol Ether Solvents • Ethylene Dichloride • Dichloroethylether • Formaldehyde • Methanol Sodium Methylate • Hexamine • Ethylene Diamine • Polyamines • Ethanolamines • Trichlorophenol • Surfactants

Laboratory Mysteries INTO INDUSTRY'S MIRACLES



Here's an Example ...

A Sonoco customer was having difficulty with the cone absorbing oil from the yarn. This made the yarn, next to the cone, brittle and stiff and hard to work. Sonoco was asked to make a cone with an oil barrier to prevent this condition.

After exhaustive research and tests, Sonoco furnished the customer with a special Unitex surfaced cone. The customer reported, "This cone completely eliminates the oil absorption problem. An oil extraction, from yarn that was aged on these cones, shows that there is no deficiency of oil in the yarn that lies next to the cone . . . at 1000 yards per minute, this yarn shows no tendency to slough off at this speed."

If you have a textile carrier problem, your Sonoco sales-engineer would welcome the opportunity to discuss it with you.

See Sonoco products on display at Booths 507-508. Knitting Arts Exhibition April 29-May 3—Atlantic City.

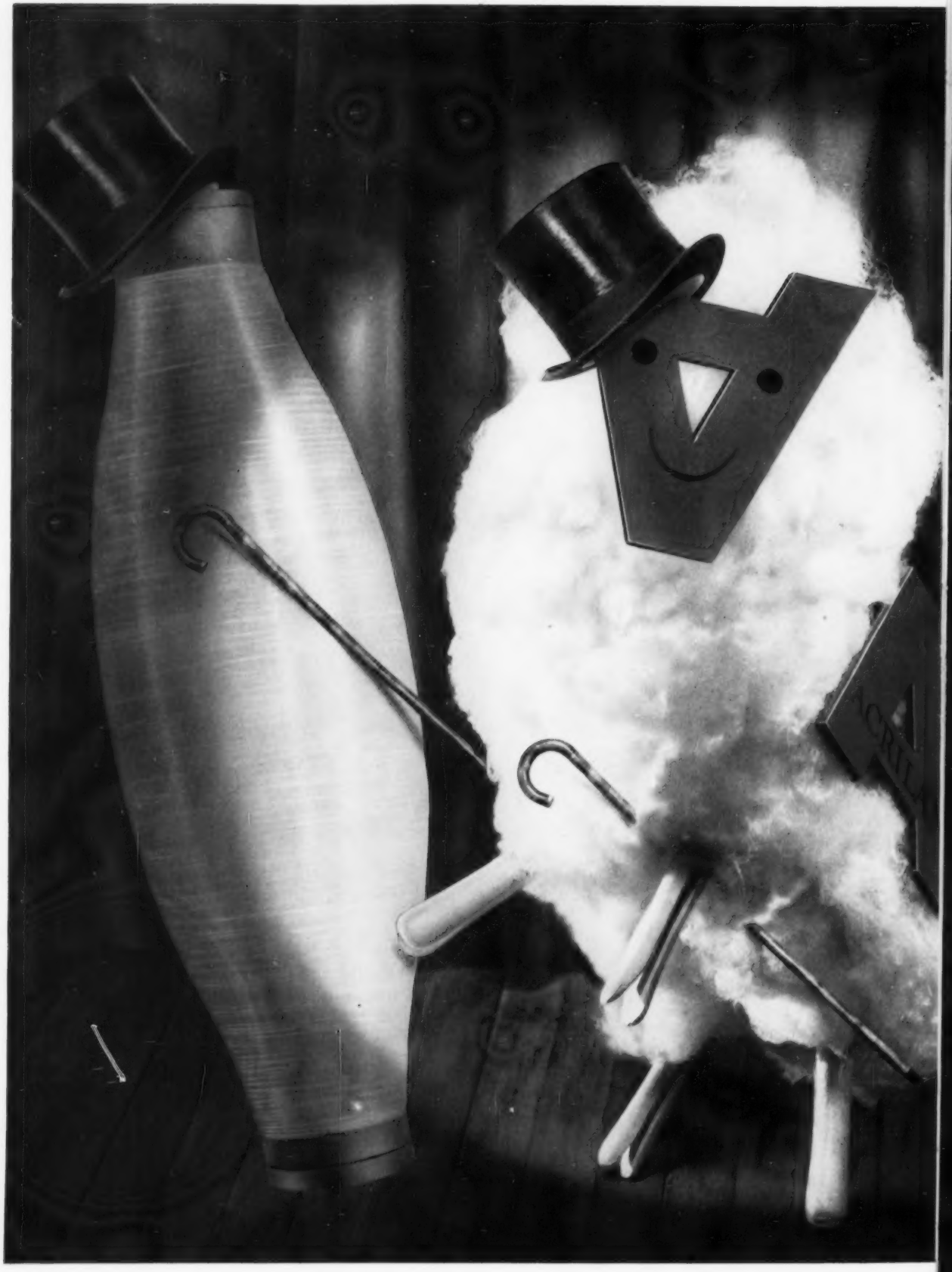
SONOCO PRODUCTS COMPANY

MAIN OFFICE — HARTSVILLE, S. C.

MYSTIC, CONN. • AKRON, IND. • LOWELL, MASS. • PHILLIPSBURG, N. J.
LONGVIEW, TEXAS • PHILADELPHIA, PA. • LOS ANGELES, CAL.
GRANBY, QUEBEC • BRANTFORD, ONT. • MEXICO, D. F.

sonoco
SERVES THE WORLD
PAPER CARRIERS
REG. U.S. PAT. OFF.

DEPENDABLE SOURCE OF SUPPLY



LOOK WHO'S IN THE QUALITY CONTROL ACT NOW

Acrilan has now moved into the spotlight enjoyed by Chemstrand nylon for unexcelled fiber quality and uniformity.

For nearly two years, the record of Acrilan acrylic fiber in mill after mill has earned it the top spot in smooth-running, efficient performance.

To achieve this record, Acrilan took an important leaf out of Chemstrand nylon's book on quality control. And in many ways, at Pensacola, Chemstrand nylon *did* write the book on new standards for man-made fibers.

Now, at Decatur, Alabama — where Acrilan is manufactured — this same concept is being applied. It embraces the most comprehensive specifications, the closest tolerances, the most exacting standards ever set up for producing a man-made fiber. This we call *Acrilan* quality control.

This control is in continuous operation at every single step of the entire manufacturing operation . . . *and beyond it* . . . to a complete pilot mill where Acrilan is test-processed 24 hours a day, 7 days a week, on machinery that duplicates the normal conditions of mill operation.

How does this answer your problems? By providing four important advantages, among others, in the processing qualities of today's Acrilan:

- *A staple-length uniformity superior to most critical needs in the textile field.*
- *A reduction in fly so significant it is raising yarn quality, reducing mill cleaning costs and waste.*
- *An improvement in high bulk processing that gives far greater assurance of fabric-shrinkage control.*
- *A dye merge uniformity now unchanged in over two years.*

Because of these advances (and they are by no means all), current production of Acrilan has reached and is maintaining a level of *uniform* quality hitherto considered impossible in the newer, man-made fibers.

Equally pertinent . . . under our concept of control, *each* new gain in Acrilan quality tightens the specifications that much more . . . promising further increases in your mill efficiency and production quality.

Yes, Chemstrand nylon is now sharing the spotlight for fiber performance with Acrilan. And the act is a smash-hit in every mill this fiber plays in!

ACRILAN

ACRILAN

THE CHEMSTRAND CORPORATION • GENERAL SALES OFFICES: 350 FIFTH AVE., NEW YORK 1, N. Y. • DISTRICT SALES OFFICES: 3½ Overmod Road, Akron, Ohio; 4 Pearl Street, Dedham, Mass.; 222 South Church Street, Charlotte, N. C. • PLANTS: ACRILAN® ACRYLIC FIBER—Decatur, Ala.; CHEMSTRAND® NYLON—Pensacola, Fl

Setol Cleanser **HAS WHAT IT TAKES TO MACHINE-SCRUB OILY FLOORS—**

Faster cleaning action!

Cuts operating time of the scrubbing machine

Because *Setol* is specially compounded for the greater speed of *combination-machine-scrubbing*, it must *and does* work faster than average alkaline cleansers. *Setol* saponifies *and emulsifies* grimy oil and grease *instantaneously*. The wetting agent in *Setol floats the oil* for fast, easy, *and thorough* removal by the vac of a *combination machine* or with a separate vac unit. And because *Setol* stays fast-acting longer—does not spend its strength quickly as do ordinary oil and grease solvents—less is required to clean a given area. Thus *Setol* saves on materials and, by speeding the cleaning process, cuts operating time of the scrubbing machine . . . reduces labor costs . . . and saves on brushes. Best of all, *Setol gets floors oil-free clean!* Also acts as a disinfectant (contains pine oil), and leaves a pleasant, clean aroma.

- **A constant, fast-acting cleanser for machine-scrubbing cement, wood, wood block, metal, stone, and terrazzo floors**
- **Consistent use on cement floors prevents cement dusting . . . provides a finish that helps seal out waste materials**

Finnell 213P Scrubber-Vac

Applies cleanser, scrubs, and picks up — in ONE operation!

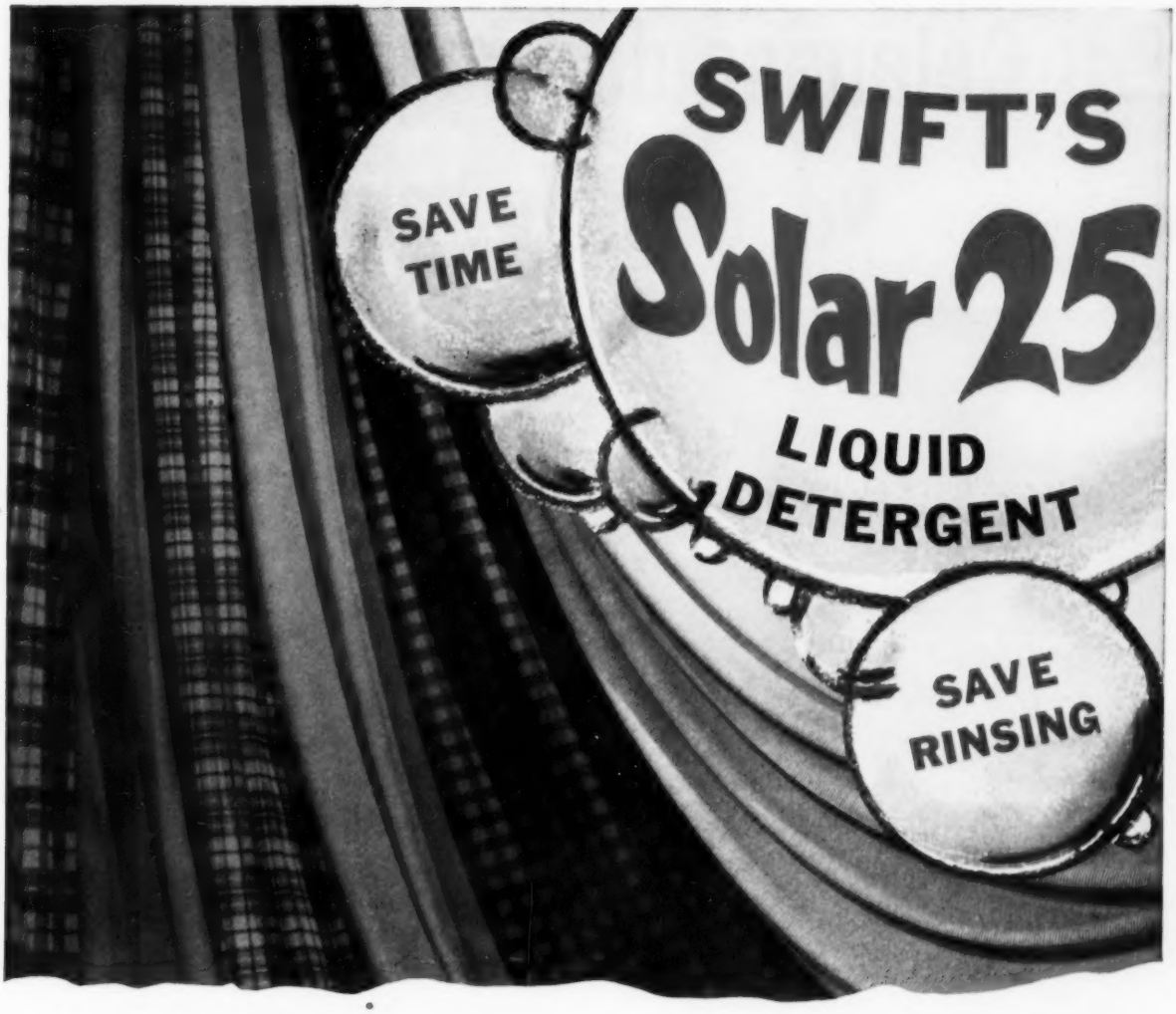
For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1304 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES



SOLAR FLAKE DETERGENT

40% active anionic Sodium Alkylaryl Sulfonate. Drum dried to provide small, dense granular flakes that take up less storage space than spray dried products. Active in hot or cold, hard or soft water, in acid or alkali solutions.

SWIFT'S WHITE RIBBON

A neutral, high titer (41-42° C.) soap available in chip or powder form. Widely used for wool, cotton or synthetic fiber processing. Particularly recommended for active, long lasting suds in higher temperature washing cycles.

SWIFT'S T-25

A neutral, medium titer (25-28° C.) red oil soap—in flake form.

SWIFT'S VERTEX FLAKES

Sodium Oleate low titer (10-12° C.) soap. Excellent for variety of low temperature operations.

More and more wool processors are taking advantage of Swift's Solar liquid detergent to help them save rinsing time and additional scouring agents.

With Solar you can full and neutralize at the same time. Extra power, time and materials needed for separate neutralizing can usually be eliminated in this simultaneous neutralizing-fulling operation. But that's not all . . . since Solar retains its detergent properties, no additional detergent is usually needed for scouring.

Write for a trial order of Swift's Solar 25 liquid today . . . see for yourself how you can get strong, active and long lasting suds in hot or cold water, neutral or alkaline solutions and save rinsing, save time and save *Solar* too. SWIFT & COMPANY, Industrial Soap Dept., 4115 Packers Ave., Chicago 9, Illinois.

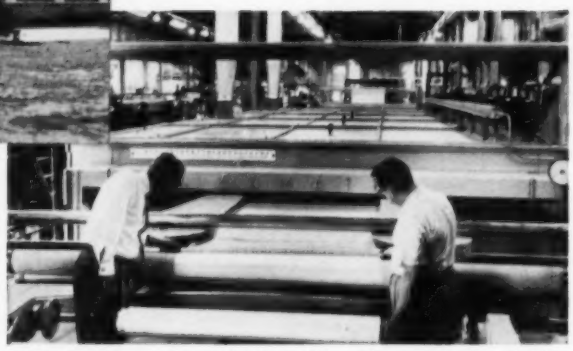
ONE TRIAL IS BETTER THAN A THOUSAND CLAIMS

Swift
102ND YEAR

To Serve Your Industry Better

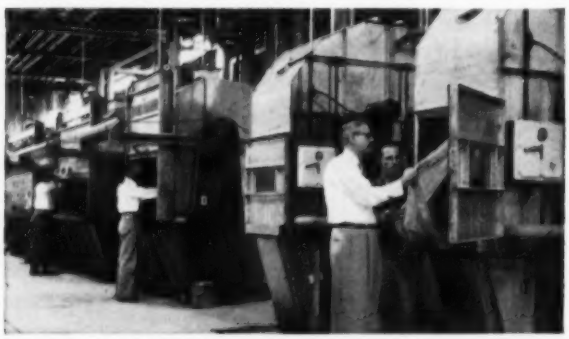
Celanese dedicates a great ... and affirms

Headquarters of the Celanese Development Center at Charlotte, North Carolina.

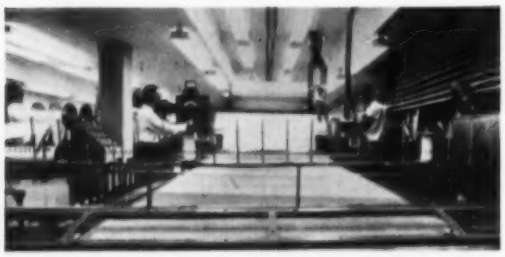


A Famatex Tenter frame for both knit and woven goods, finishes fabrics to final widths of 24" to 120".

For development of non-wovens, Celanese uses Curalator Rando-webber in line with spray booth and infra-red drying unit.



Dyeing and finishing laboratories employ dye becks capable of handling full production runs.



Eight can slasher works in conjunction with high speed beamers and modern looms.

Celanese

new textile development center a marketing philosophy

Celanese is convinced that developing and promoting its fibers in relation to the needs of the industry is a practical, profitable and constructive marketing philosophy. It offers stimulus and stability to us—and to you.

That is why—on January 30th—Celanese unveiled at Charlotte, North Carolina, the Celanese Development Center—largest and most advanced development operation in existence.

Its outlook is industry wide. Its aim is to expand markets by creating new end uses for—and new methods of working with the Celanese family of fibers. Celanese welcomes inquiries and suggestions that fit in with its larger scope —that of over-all industry improvement.

Presided over by seasoned textile scientists and experienced production personnel—averaging over 20 years mill experience—all work is evaluated in *production* quantities. It stands in contrast to the industry's traditional trial and error pilot operations—offering you fiber, fabric and process data with most of the "bugs" removed.

In 160,000 square feet, using the industry's most modern equipment, Celanese scientists are now developing new end uses for fibers, as well as improved textile processing, dyeing and finishing techniques. And their findings are passed on to all segments of the textile industry.

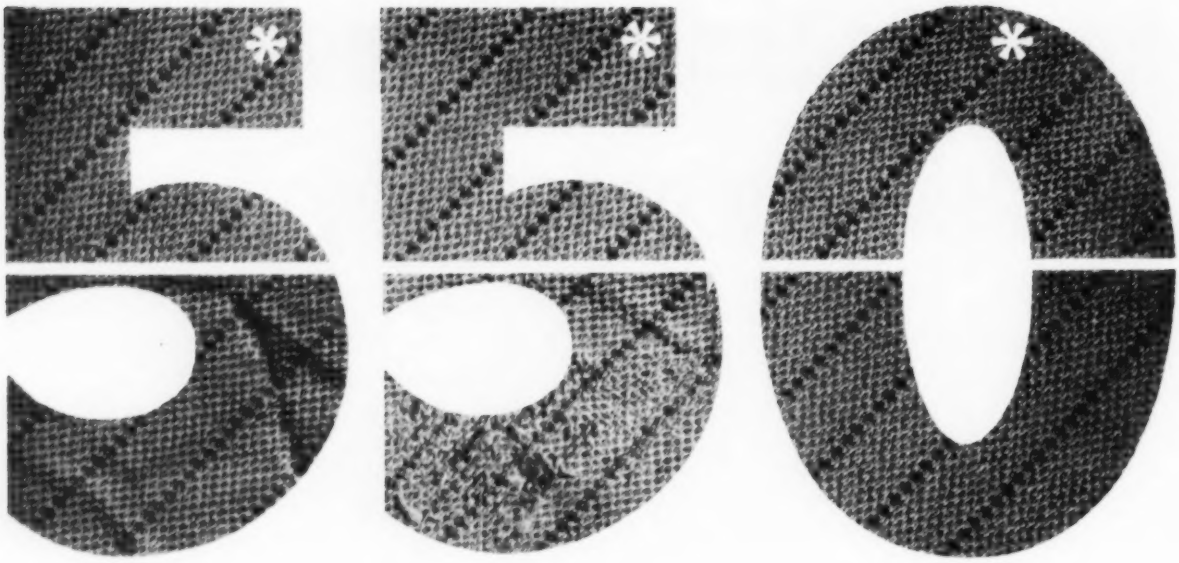
There are five complete laboratories for spinning, knitting and weaving, non-woven fabrics, as well as finishing and dyeing.

A measure of its scope? In one laboratory alone are 45 looms capable of producing fabrics ranging from sheer voiles to industrial tarpaulins, 10″ to 76″ wide. While warps can be made in lengths from under 100 yards to 90,000.

The new Celanese Development Center is one facet of the overall Celanese program that goes from fabric development in our plants to technical assistance in yours, from the weaving to the wearing—a program unrivalled in this industry. Celanese Corporation of America, New York 16. Celanese®

Arnel® Triacetate • Fortisan® Rayon • Fortisan®-36 Rayon • Acetate • Viscose Rayon • Celaperm® Acetate • Celacloud™ Acetate

CONTEMPORARY FIBERS



THE WICA REACTANT RESIN!

FIVE

Hangs-out five times better than untreated fabric . . . all for less than a fifth of the cost of lost buyers when the market demands full blown-up feel of reactant resin results.

FIVE

"Formidable" resistance is offered to surface abrasion . . . tensile strength, resiliency and hand is substantially increased . . . vitality of fabric is dramatically improved . . . each fibre is reinforced with penetration of WICA reactant resin 550 throughout.

ZERO

Dyed shades are effected negligibly . . . nothing impedes fabric's breathing with WICA resin 550 . . . voided orders are unheard of with alive, easy handling fabric treated with WICA reactant resin 550.

Wica

WICA CHEMICALS, INCORPORATED

OLD CONCORD ROAD • CHARLOTTE, NORTH CAROLINA

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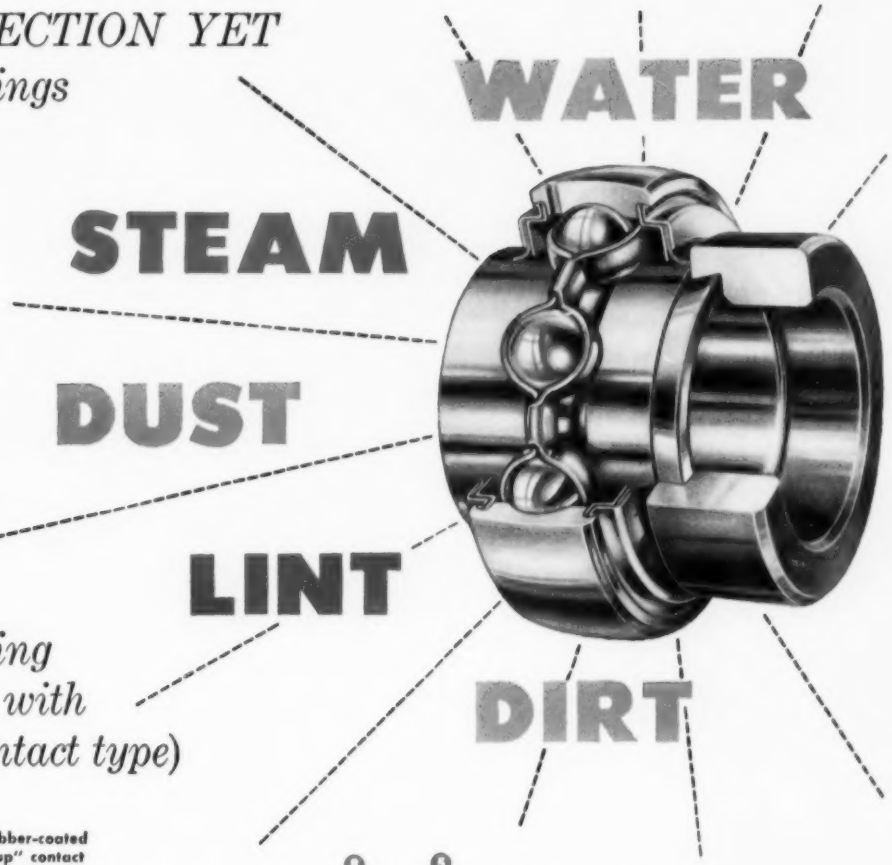
SPECTRUM ACCURACY

We will treat a sample of your fabrics on request.

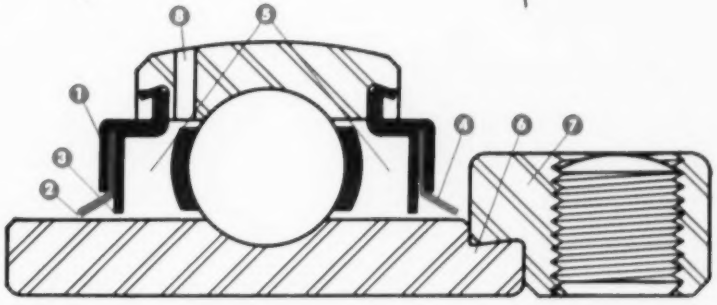
BEST PROTECTION YET
for Ball Bearings
exposed to



FAFNIR
Wide Inner Ring
Ball Bearings with
Plya-Seals (contact type)

FEATURES

1. **Plya-Seal of resilient Buna N rubber-coated fabric insuring proper "follow-up" contact**
2. **Seal rides in firm contact on ground outside diameter of inner ring**
3. **Close-clearance of inside metal shield with outside diameter of inner ring provides rigid support for seal**
4. **Flared lip of Plya-Seal won't push in**
5. **Generous space for lubricant**
6. **Wide inner ring for extra shaft support**
7. **Fafnir-originated self-locking, eccentric-cam-design collar**
8. **Relubricatable**



On slow to moderate speed applications where service conditions are subject to excessive contamination, Fafnir Plya-Seal equipped Wide Inner Ring Ball Bearings fill a definite need. Their laboratory and field-tested performance offers the proven protection of contact-type Plya-Seals. They provide every advantage of Fafnir Wide Inner Ring Ball Bearings with Self-Locking Collars . . . ease of application, positive locking, extra large support area on the shaft, relubricatable or nonrelubricatable, self-alignments.

The Plya-Seal as incorporated in the Fafnir Wide Inner Ring Bearing consists of two steel plates between which is sandwiched a synthetic rubber-coated fabric sealing washer. Both steel plates are fixed securely in an outer ring groove. The inner plate provides a rigid backing for the seal and a close-clearance baffle for the retention of grease.

This recent addition to the Fafnir Line is dimensionally interchangeable with the Fafnir Wide Inner Ring Ball Bearings equipped with Mechani-Seals. All types are prelubricated at the factory. Write for descriptive bulletin. The Fafnir Bearing Company, New Britain, Connecticut.

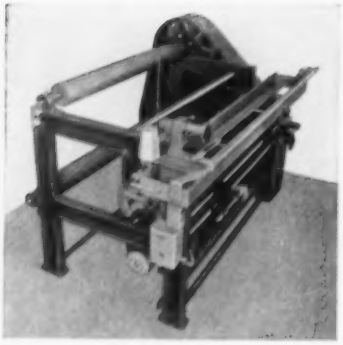
FAFNIR WIDE INNER RING BALL BEARING WITH PLYA-SEALS AVAILABLE IN UNITS BELOW

RAK

RCJ

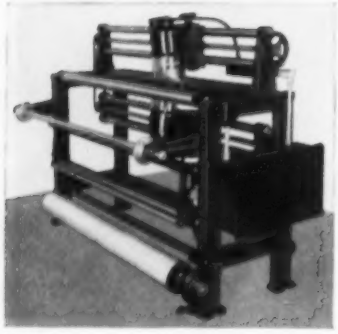
Flangette

FAFNIR
BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

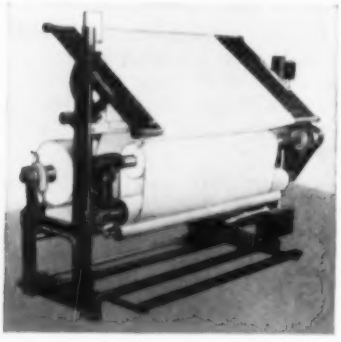


DUPLEX SEWING AND WINDING MACHINE sews loom rolls together for continuous shearing

SELVAGE LOOP CUTTER prepares cloth for shearing



M-125 SHEAR for synthetic and cotton fabrics



S 2A UNISPEED INSPECTOR for synthetic fabrics

Your finished fabric represents your most expensive item . . . so waste here is more costly—both for labor and materials—than in any other operation in your mill. Thus, your answer is better cloth finishing . . . overall cost is small, but improvement in the appearance and the cleanliness of your cloth is great. If you agree . . our engineers are ready and qualified to help you.

CURTIS & MARBLE MACHINE CO.

Serving the Textile Industry for more than 125 years

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SOUTHERN SALES & SERVICE • SOUTH CAROLINA NATIONAL BANK BUILDING, GREENVILLE, S.C.

Ask your Monsanto Representative about

STYMER*

Synthetic Sizes

Stymer S tells a uniformly excellent story full of positive values for the mill—from non-souring stability that permits large batches to be made up at one time, to easy and complete de-sizing of even long-stored cloth.

Stymer solutions won't gel in the size box, don't build up on cans. There's seldom need for can covers. Leasing in size is standard practice.

The billions of yards of first quality cloth woven from Stymer sized yarns warrant your investigation of this unusually uniform, tough, and flexible size for filament acetate and viscose. Ask your Monsanto representative how Stymer S can cut your costs. For technical data and samples, write Monsanto Chemical Company, Plastics Division, Room 1887, Springfield 2, Mass.

MONSANTO

Other Monsanto Textile Chemicals are: RESLOOM® E-50 . . . for finishes with outstanding dimensional stability and wrinkle recovery . . . with no stiffness or harshness . . . and other RESLOOM finishing resins for cottons, woolens, rayons, viscose, and synthetics . . . and AC CATALYSTS . . . for fast, uniform curing of melamine, urea, and other thermosetting finishing resins.

SPEED: 12,500 rpm PROBLEMS: none

Quill winding spuns with KIDDE compensators

For 2 years, these winders have operated at 12,500 rpm with the help of new Kidde double disc compensators, specifically designed for use on spuns and natural fiber yarns. At top efficiency, they've turned out the kind of quills that give top loom performance. There are 5 reasons why these Kidde Compensators give such outstanding performance.

1. You get maximum density control with Kidde Compensators, cutting down on quill changes and assuring uniform quill size as well.
2. There is never any build-up of lint because Kidde Compensators are entirely self-cleaning.
3. Tension is automatically maintained at designed strength of yarn.
4. Kidde Compensators assure absolutely uniform quill diameters.
5. Positive tension control is maintained without any abrasion.

Can you afford to do without these "constant watchmen" over your winding process?

For full information, write to:

TRICOT AND RASCHEL MACHINES • TRICOT WARPERS • HORIZONTAL WARPERS • BEAMERS
CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS • TENSION COMPENSATORS

Kidde

MANUFACTURING CO., INC. — 42 FARRAND STREET — BLOOMFIELD, NEW JERSEY

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The word KIDDE is the trademark of Walter Kidde & Company, Inc., and its affiliated companies.

Nylon for Carpeting....!

WHY?

HERE'S WHY:

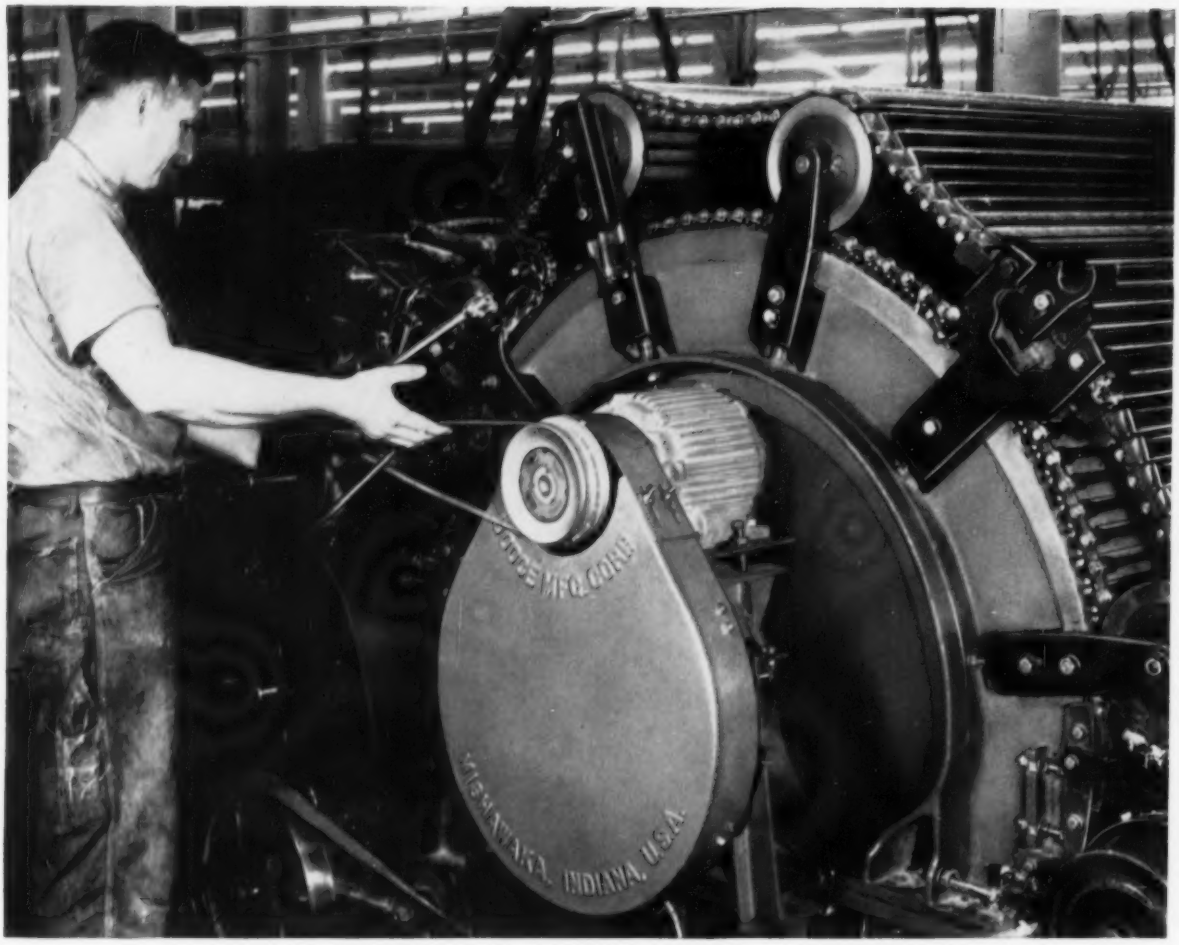
1. **Permanent Textures.** More *permanent* than wool, cotton or rayon.
2. **Cleanable.** Nylon is an easy-to-care-for fiber. The round, smooth nylon fibers prevent dirt from clinging May be spot-cleaned and shampooed Dries quickly
3. **Resists Abrasion and Scuffing.** Will outwear comparable carpeting made from *any other* fiber
4. **Resists Crushing and Matting.** More crush resistance and less matting than comparable wool, rayon or cotton floor coverings in service.
5. **More Resilient.** More resilient than comparable wool, rayon or cotton floor coverings after continued usage.
6. **Economical.** The strongest and toughest of all carpet fibers, nylon will outwear comparable wool and rayon fabrics, thus be actually less expensive in the long run.
7. **Mothproof, Insect-Resistant.** Never a worry about moths! Carpet beetles cannot attack nylon carpeting.
8. **Decorator Colors.** Nylon can be dyed in lasting colors and an attractive range of shades.

Any reliable manufacturer can deliver these benefits in carpeting made from 100% IRC nylon. In addition, manufacturers can, and are delivering nylon blends in superior carpeting which features many of the pluses listed above.

Nylon offers the carpeting industry positive performance characteristics that add up to true value for the consumer.

THE NEW Nylon Staple I·R·C

INDUSTRIAL RAYON CORPORATION, Sales Offices: 500 Fifth Avenue, New York 36, N. Y. • 627 Guilford Building, Greensboro, N.C.



INDIVIDUAL CARD DRIVE GIVES SOFT STARTS

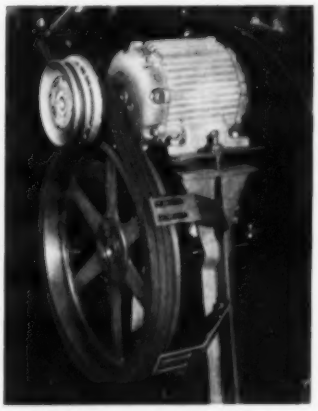
...ACCELERATES QUICKLY TO FULL SPEED

...AVOIDS EXCESSIVE STRAIN

Flexidyne, heart of this new complete Card Drive by Dodge, picks up the load smoothly . . . protects machinery and motor against shock and overload . . . delivers 100% efficiency during running cycle. Flexidyne, *the Dry Fluid Drive*, eliminates need for high torque motors and expensive controls, saves power, provides a new and better way to drive textile machines.

Note the special aluminum pulley mounted on Flexidyne housing, enabling quick, convenient operation of stripper. Pedestal has adjustable motor base to control tension on V-belts. You should have the full story of all the advantages of the new Dodge Flexidyne Card Drive. Ask your local Dodge Distributor, or write us, for new illustrated Bulletin A-653.

DODGE MANUFACTURING CORPORATION
3500 Union Street, Mishawaka, Indiana



NEW! FLEXIDYNE CARD DRIVE

A complete package, ready to install.

- Flexidyne, keyed to motor shaft
- Pedestal, supporting motor
- V-flat drive
- Aluminum stripper pulley
- Aluminum guard

DODGE

of Mishawaka, Ind.

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new, cost-saving methods. Look for his name under "Power Transmission Machinery" in your classified telephone directory, or write us.

Tuffer TRADE MARK *Card Clothing*

For those who know what they want

. . . and want only the very best!

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jade greens of purest hue

For all vat dye applications at all stages of manufacture with all types of equipment – new, improved

CALCOLOID® JADE GREEN N SUPRA DOUBLE PASTE
CALCOLOID® JADE GREEN N SUPRA DOUBLE POWDER
CALCOSOL® JADE GREEN NP SUPRA DOUBLE PASTE

When dyeing or printing vat shades requiring a green of the utmost brightness and clarity, CALCO is your key to jade greens unsurpassed in full-hued purity, tinctorial strength, ease of application, and all-around fastness.

Excellent stability of its sodium leuco compound makes Calcoloid Jade Green N Supra Double Paste suitable for dyeing at above 212° F. in high temperature closed circulating machines, as well as below 212° F. in Williams units, or in open system circulating machines . . . with level dyeings and excellent color value by all three standard application methods. Ease of dispersion and non-specking properties rate exceptionally high.

In printing with Calcosol Jade Green NP Supra Double Paste, development is uniform, fixation complete.

Combine all of these exceptional qualities– brightness and clarity, good tinctorial strength, ease of application, all-around fastness– with *economy* . . . and you can understand why Calco Jade Green vats are top favorites with colorists!

Contact your nearest Cyanamid Dyes representative for complete technical information and samples.

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Calco®
THE SYMBOL OF QUALITY DYES

Trade Mark

Textile Industries
for April, 1957

News IN BRIEF

Textile Expansion Ahead? A new low number of cotton spindles is now operating, with 666,000 eliminated during the past year alone, W. Ray Bell, president of the Association of Cotton Textile Merchants of New York, told the recent annual meeting of his organization. As a result, the average spindle has had to run in excess of 6,000 hours in each of the past two years to provide enough cotton textiles to keep up with the increase in population. Since spindle hours can not be significantly increased, Mr. Bell predicts a period of expansion in the foreseeable future.

Which Fiber in New Cars? The new 1957 cars are using upholstery materials in approximately the ratio of 4 to 1 in favor of man-made fibers, reports the Textile Economics Bureau, Inc. On the other hand, the National Cotton

Council states that cotton still accounts for 36 per cent of the upholstery fiber used, up from 11 per cent in 1950. The average four-door sedan uses 15 to 17 yards of material, says TEB.

Red Chinese Exports. Exports of fabrics from Communist countries, especially Red China, to ten Asian countries exceeded 300 million yards in 1956, causing considerable concern to Japanese exporters who have previously served that market. Mills in Shanghai alone produced about 1,951 million yards last year, according to Radio Peking. About 15 per cent of this was exported to Southeast Asia countries.

Textiles Still No. 1. Textiles is still the Southeast's leading industry, but others are creeping up, reports the U. S. Department of Commerce. Latest figures show

that textiles produced in the region had a value of $2.08 billion, more than twice the nearest competitor—food processing—at $1.02 billion. However, textile production has shown a slight decline in dollar volume during the post-war years, while all of the other sixteen industries studied posted gains during the same period, ranging up to 144 per cent.

Engineering Teacher Shortage. The urgent problems faced by engineering colleges in retaining their present staffs and developing new teachers in the face of keen

competition for engineering talent has prompted the American Society for Engineering Education to start a major study of the situation. Dr. Harold L. Hazen, Dean of MIT's Graduate School, is chairman of the project.

Same Wool Incentive Price. The U. S. Department of Agriculture has announced that the shorn wool incentive price for the 1957 marketing year (April 1, 1957 to March 31, 1958) will be 62 cents per pound, the same as the incentive prices for the 1955 and 1956 marketing years. Support price for mohair also remains the same, at 70 cents.

Stricter Rules for Learners. Employers seeking learner certificates from the Wage and Hour Division of the U. S. Department of Labor must now show that they have exhausted local employment service rosters for experienced workers.

Per Capita Fiber Use Down. Civilian per capita consumption of cotton, wool, and man-made fibers in the United States through the

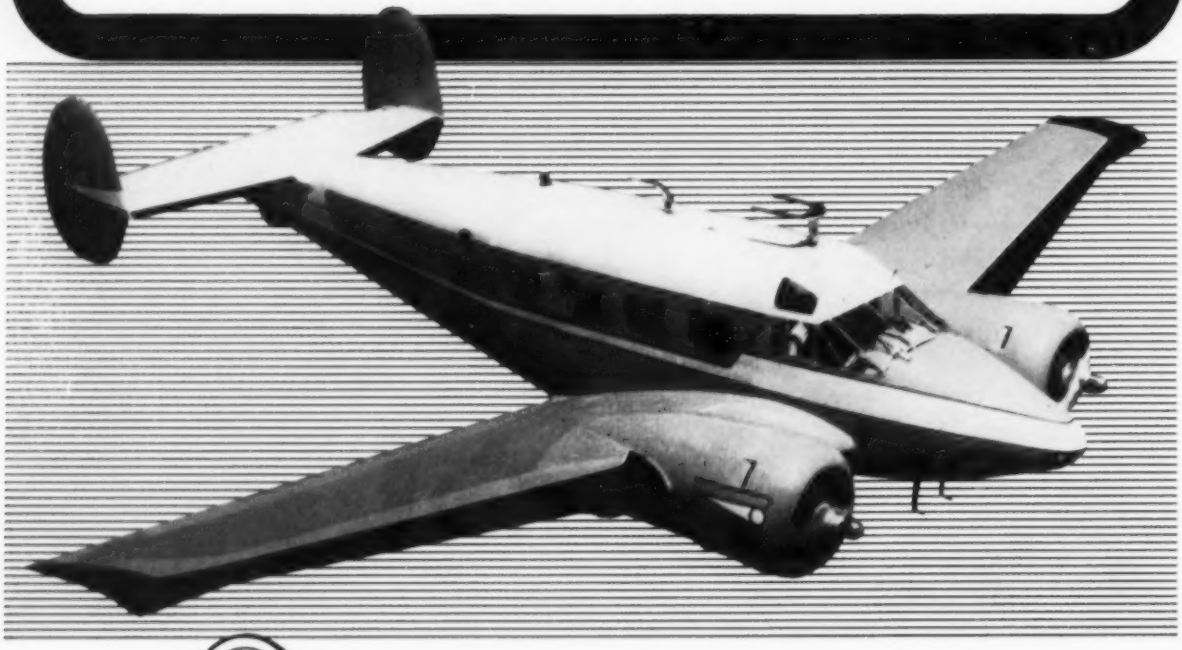
middle of 1956 was at an annual rate of 36.1 pounds, a decline of 0.3 pounds from the previous year but 3.6 pounds above the 1954 rate, according to *Textile Organon*. The total was made up of 23.8 pounds of cotton, 3.2 pounds of wool, and 9.1 pounds of man-made fibers—changes of + 2½ per cent, + 10½ per cent, and — 11½ per cent, respectively, compared to 1955.

Imported Fabrics on Display. What is claimed to be the largest collection of imported woolens, silks, furs, and furnishings ever seen in this country will be featured among the 3,000 exhibits from 43 countries to be on display at the World Trade Fair in New

most **EFFICIENT**

most **ECONOMICAL**

of all business aircraft



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Beechcraft → airfleet of the textile industry

York's Coliseum from April 14 to 27.

Georgia Tech Enters Atomic Era. A subcritical nuclear unit has gone into operation at Georgia Institute of Technology, Atlanta. The uranium and neutron source

material was furnished to the school on loan from the U. S. Atomic Energy Commission. The unit is operating temporarily in the Institute's power plant building, but later will be housed in a new Radioisotopes Building.

Tear Strength Research. The Southern Utilization Research Branch of the U. S. Department of Agriculture has awarded a contract for research in the improvement of the tear strength of resin-treated cotton fabrics to Fabric Research Laboratories, Inc., Dedham, Mass.

Colour Index Available. The first of four volumes of "The Colour Index," published jointly by the American Association of Textile Chemists and Colorists and the Society of Dyers and Colourists (Great Britain) is now available from AATCC's headquarters in Lowell, Mass. Two more volumes will be published this year, and the final volume is scheduled for release in March, 1958.

Data on Acetylated Cotton. A summary of information on partially acetylated cotton—its preparation, properties, uses, and potential uses—is available without cost from the Southern Utilization Research Branch, U. S. Department of Agriculture, New Orleans 19, La. Ask for ARS-72-4, "New Textile Products from Cotton."

Textile Employment Down. The textile industry employed 601,700 persons in the South in mid-December, 98.1 per cent of the average employment for the period 1947-1949. The figure for December of 1955 was 101.5 per cent.

No Rate Boost for Textiles. Although the Interstate Commerce

"Rebirth of Optimism"—Erwin

In recent months there seems to have been a rebirth of optimism about the future of the textile industry. Leading spokesmen for our industry are no longer emphasizing the gloomy note that has been so prevalent in the past. This healthy change in outlook does not derive from any satisfaction with the current level of activity in the textile marketplace; actually the market is slow now for most fabrics. Rather it stems from a studied look at the long range factors that could and should improve the industry's prospects.

First, our national economy is growing apace, and as it grows, so do the nation's living standards. In 1955, personal consumption expenditures reached the whopping total of $250 billion, almost double what they were 25 years ago after allowing for increases in the level of prices. This means that the American people are demanding more and better goods, and more and more people have increased incomes to support their buying desires. . . . the experts on these things expect to see our economy continue to expand. This will help the textile industry.

Second, population is up. In the past 25 years, population in the United States has increased by 42 million, or an average of almost 8½ million for each 5-year period. It comes as no surprise that the precipitate increase in population figures applies largely to children and young people, good customers today for textile apparel, but sure to be better ones in the future. . . .

Third, the amount of textile machinery in operation has decreased, down by 25% in the past 20 years. Last year the industry had to operate at 91% of capacity to meet demand. The attrition in the industry that has seen mills go out of business and machinery decrease is having the effect of bringing productive capacity closer in line with demand. This has been a gradual process, but the ultimate result should be to minimize the ancient, tenacious curse of our industry—tremendous overproduction accompanied by grossly inadequate prices.

This development, in the larger view, will help the industry, harsh as the treatment may be to the marginal mills that go out of existence, and to the employees who look to those mills for their livelihood. But there can be no question that a better balance between production and demand will help the textile industry and perhaps lead to expansion, reversing the trend of recent years.

Dan River's Erwin

When you evaluate these factors and others I have not mentioned, there seems to be a sound basis for optimism about the future of the industry in the years ahead. If the immediate prospect is not as attractive as it might be, there is reason to believe that a brighter day is dawning. Let us hope it is not far off.—*William J. Erwin, president of Dan River Mills, Inc., in a recent address at Dadeville, Ala.*

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Commission has granted a 5 per cent rate boost to southern railroads, they have announced that they will not apply the increase to textile products.

School for Ginners. Definite action to establish a training center to provide courses of study in cotton gin engineering will probably be taken in 1957, the annual meeting of the National Cotton Council was told by Harry S. Baker, ginner delegate from California.

Maid of Cotton, J. G. The National Cotton Council is starting a "Little Miss Cotton" contest, modeled on the Maid of Cotton promotion. By 1958, small fry in 25 cities across the country are expected to compete in local contests, with a national winner being selected from the local winners.

Rayon Plant for Formosa. A filament rayon producing plant with an annual capacity of about four million pounds went into production on the Nationalist Chinese island of Formosa toward the end of 1956.

Synthetics to Catch Cotton? Production of man-made fibers, not including rayon and acetate, will reach four billion pounds annually by 1975—approximately the current annual rate of consumption for cotton—according to Frank J. Soday of the Chemstrand Corp.

Taslan Production. Production of Taslan, Du Pont-developed bulked filament yarn, has topped the 2,000,000 pounds-per-year level, according to a company spokesman. The yarn is produced by licensees under Du Pont patents.

Depreciation Methods Compared. For assets with ordinary lives (over five years) a taxpayer will not go far wrong by adhering to the following simple rule: Use the sum - of - the - digits depreciation method where the salvage estimate is below 10 per cent of cost; the straight declining - balance method where the estimate exceeds 10 per cent. This is the major conclusion of a detailed discussion of "The Sum-of-Digits and Declining-Balance Depreciation Methods Compared," which appears in No. 28 of the *Capital Goods Review*, published by Machinery and Allied Products Institute, 1200 Eighteenth St., N.W., Washington 6, D. C.

Weather-Resistant Cotton Awnings. A new treatment claimed to make cotton awnings more resistant to sunlight and mildew consists of an application of 6 per cent urea-formaldehyde resin plus copper-8-quinolinolate before coating or striping. Duck treated in this way retained as much as 92 per cent of its original strength after 12 months exposure, compared to 67 per cent for the usual commercially treated fabric. The treatment was developed jointly by the U. S. Department of Agriculture and Canvas Products Association International.

News in Brief

Cotton Supply and Usage. Stocks of cotton in warehouses, mills, and elsewhere on July 31, 1956, amounted to 14,528,823 running bales, reports the Bureau of the Census. This compares with 11,205,356 bales on July 31, 1955. Domestic consumption during the year ended July 31, 1956, was 9,141,012 running bales, including 122,991 bales of foreign cotton.

High-Tenacity Dacron. Development of a process for converting Dacron yarn to a material of higher strength and improved resistance to heat degradation is described in a new publication released by the Office of Technical

MERCHANDISING NOTES

Du Pont Co. reports that man-made fibers are being used this year in the widest variety yet by

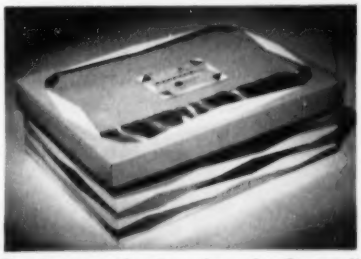
top Paris fashion designers. Dacron has made its Paris debut in satins and shantungs.

National Cotton Council will recall 1956 Maid of Cotton Patricia Anne Cowden into service to send

her to Italy in early April to help Italy celebrate its first Cotton Week.

Riegel Textile Corp. has introduced two new types of pillowcases; one has printed borders at both ends, and the other features metallic prints.

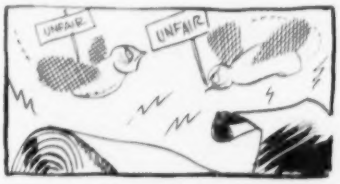
Pepperell Mfg. Co. has won a merit award in the Package Designers Council Third Annual



The "treasure-chest" package for Pepperell blankets.

Awards Competition for its "treasure-chest" blanket package.

North Star Woolen Mills have introduced two new blankets



durably mothproofed with Geigy's Mitin. [Story on page 139 tells how mills apply Mitin.—Eds.]

Trading stamp stores purchased a total of $2 million worth of tufted textiles in 1956.

Using Salt Efficiently

by **INTERNATIONAL SALT COMPANY, INC.**—America's largest producer of salt

Salt Dissolvers, Brine Storage Units Now Available in Corrosion-Proof Plastic

Here's important news for every user of salt brine. In response to a growing demand for equipment that will not rust or corrode in use, International is now offering fully automatic plastic dissolvers for both rock and evaporated salt—as well as plastic storage tanks for brine. Already in use in many plants, these plastic units give the same fine performance as International's metal equipment, with this important added feature: they are 100% corrosion-proof.

To select the correct plastic for these new units, International's researchers conducted an exhaustive series of tests. These tests showed that a fiber-glass-reinforced polyester is most suitable for the job. Made of this material, the new plastic units will stand up, with strength to spare, when loaded to full capacity.

The reinforced plastic used in this new equipment is completely unaffected by any chemical action of salt or brine. Because of this feature, there can never be any rust specks in the brine, and there is no danger of contaminating the brine's flavor or color.

Durable, long-wearing . . . In addition to being corrosion-proof, the plastic in International's new equipment has another important advantage. It is

LOOKING DOWN into the new plastic dissolver. Shows simple, rugged construction . . . float for liquid level control . . . circular pipe for admitting water into dissolving chamber.

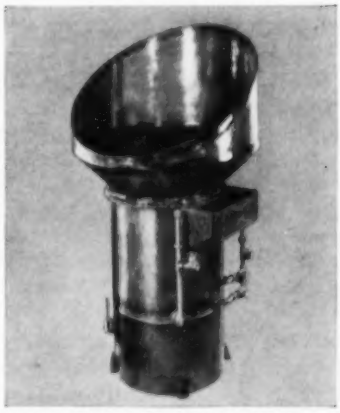
unusually strong and durable—has one of the highest weight-strength ratios known today. In fact, during one testing procedure, a plastic brine storage unit was loaded with over 3,500 lbs. of coarse rock salt—and showed no deformation anywhere. Furthermore, this plastic will not dent or chip even under the severest conditions. As a result, years of trouble-free service are expected from these new units.

Sturdy construction is used throughout the dissolvers and storage tanks. For example, the points at which pipes or couplings enter the units are even stronger than the units themselves. Here, a new resin cement has been used to provide a tough, lasting bond between connections and tank walls.

Other features . . . The dissolvers and storage tanks—being made of plastic—need no painting or other maintenance. The units are especially light in weight, making installation or moving a simple job. And because they are translucent, the true brine or salt level is always visible.

Two types of salt dissolver available . . . For making high-quality brine from rock salt, the Sterling Model Lixator is available in plastic. This unit is a duplicate of International Salt Company's famous metal Lixator—and operates on exactly the same principle. Crystal-clear, fully saturated brine for all plant uses is made automatically by the Lixator—and can be delivered automatically to all points of use from the Lixator.

Also available in plastic is the Sterling Evaporated Salt Dissolver for making brine from different types of evaporated salt. Both these plastic dissolvers offer the same savings in labor, space, and salt as the same models made of metal.



STERLING MODEL LIXATOR IN PLASTIC. Widely used today for making Lixate Brine for water softening, canning, meat packing, chemical manufacture, etc.

The new plastic dissolvers are available in the same standard sizes as International's metal units. And the brine storage tanks in plastic can be made in sizes to meet a plant's specific requirements.

TECHNICAL SERVICE WITH YOUR SALT

Through skilled and experienced "Salt Specialists," International can help you get greater efficiency and economy from the salt you use. International produces both Sterling Evaporated and Sterling Rock Salt in all types and sizes. So we can recommend the type and size of salt most perfectly suited to your needs.

If you'd like the assistance of an International "Salt Specialist" on any problem concerning salt or brine—or further information on the new plastic equipment—just contact your nearest International Salt Company sales office.

International Salt Co., Scranton, Pa.

Sales Offices: Atlanta, Ga.; Chicago, Ill.; New Orleans, La.; Baltimore, Md.; Boston, Mass.; Detroit, Mich.; St. Louis, Mo.; Newark, N. J.; Buffalo, N. Y.; New York, N. Y.; Cincinnati, O.; Cleveland, O.; Philadelphia, Pa.; Pittsburgh, Pa.; and Richmond, Va.

FOR INDUSTRY, FARM, AND THE HOME—

STERLING SALT

PRODUCT OF INTERNATIONAL SALT CO., INC.

Services. The process involves stretching the yarn at a high temperature, holding for a short period, and then allowing free shrinkage at the desired temperature. Construction of the necessary machinery is described in the 57-page book, "Development of High Tenacity-Heat Stable Dacron Yarns," by R. J. Coskren and T.T. Constantine of Fabric Research Laboratories, Inc., which is available from OTS, U. S. Department of Commerce, Washington 25, D. C., for $1.50. Ask for PB 121566.

Wash 'n Wear Pointed Up. Nearly 80 per cent of retail clothing buyers interviewed recently by representatives of the Du Pont Co. predict that sales of wash 'n wear slacks will show a "substantial" increase this summer. The most popular blend will be Dacron and cotton, according to the survey.

Association Guide Available. A directory of the 275 textile and apparel trade associations in the United States, with their administrators, has been compiled and

published by Werner Textile Consultants. Because of limited quantities, copies are available on the basis of one per company from Werner, at 60 E. 42nd St., New York 17, N. Y., for $1.00.

Japanese Expand Overseas. Kureha Spinning Co., one of Japan's largest textile mills, is planning to set up a cotton mill in Mexico, with 10,000 spindles and 100 looms. Another Japanese mill, Kurashiki Spinning Co., has sent representatives to Brazil to draft plans for a 20,000-spindle cotton and wool mill. Other Japanese ventures abroad: Dai Nippon Spinning Co., two mills with a total of 40,000 spindles in Burma; Kureha Spinning Co., two spinning mills in Burma; Gosho & Co., 10,000-spindle mill in Iran; Marubeni-Iida, another 10,000-spindle mill in Iran. Toyo Spinning Co. is now operating 30,000 spindles and Kanegafuchi Spinning Co. is operating 10,000 spindles in Brazil, and Kureha Spinning Co. has a mill in El Salvador with 25,300 spindles and 264 looms.

News in Brief

Cotton for Sports Shirts. A record-breaking 14.7 million dozen men's sports shirts were produced last year, 75 per cent of which

were cotton, according to the National Cotton Council. Ten years ago cotton had only 43 per cent of the 4.6 million-dozen market.

Test Cottons Available. Cotton calibration standards, consisting of three samples having high, medium, and low readings in the Micronaire fineness test and the Pressley strength test, are now available from the Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture. The Standard test cottons, to be used by merchants and spinners in the U. S. and Europe, were developed by a committee of representatives of interested organizations. Sponsoring groups will also form a special committee of the American Society for Testing Materials to supervise the program.

Our Big Remaining Problem

The basic problem of the textile industry is still very much with us [despite the quota agreement between the American and Japanese governments]. This problem is how to achieve a more orderly and intelligent method of selling and promoting our product. When other industries in the United States such as steel and automobiles increase their wage rates, no one has to wonder what will happen to the price of steel and automobiles. The increased wage cost is of course added to the price of the product.

In October of last year, most cotton mills increased their wages an average of 10 cents per hour. . . . at the time I thought this wage increase was long overdue, and I still think so.

How successful were we in adding this wage increase to the price of our product? Before the wage increase, 4-yard 80-square print cloth was selling at 19 cents a yard, or 76 cents a pound. Today, the same cloth is selling at 18 cents a yard, or 72 cents a pound.

Since last October, cotton has gone up a cent a pound. Instead of raising the price to take care of the wage increase and the increase in the price of cotton, the price was reduced 4 cents a pound. I mention this particular fabric because there is more of it made than any other one fabric and because what has happened to the price of it is typical of what has happened to the price of many cotton textiles.

Before the price decline I have just mentioned, our industry was earning only half of the average of American industry, figured either as a percentage of sales or as a percentage of invested capital. There are many explanations of why textiles, a basic American industry, operates with such a demoralized price structure. The principal explanation is that, although our industry is one of the largest, it is composed of relatively small units.

If we can get together as we did on the Japanese import problem, it would certainly seem there should be some way within the framework of the anti-trust laws in which we could achieve, as other industries have achieved, a more orderly and intelligent merchandising of our product.

The alternative of more intelligent merchandising is a period of further liquidation of the industry and completely unsatisfactory results for our stockholders and employees. I believe I can truthfully add to this list our customers, who, I am confident, don't like a demoralized price structure any better than we do—*J. Craig Smith, president, Avondale Mills, and associate editor,* The Avondale Sun.

Wellman Combing Company, Johnsonville, South Carolina

This plant, the first wool processing plant in the Southeast, and owned by Nichols and Company, Inc. of Boston, the largest wool treatment concern in the country, recently went into production. It has a capacity of 20 million pounds of grease wool per year, and is planned for enlargement to four times that capacity.

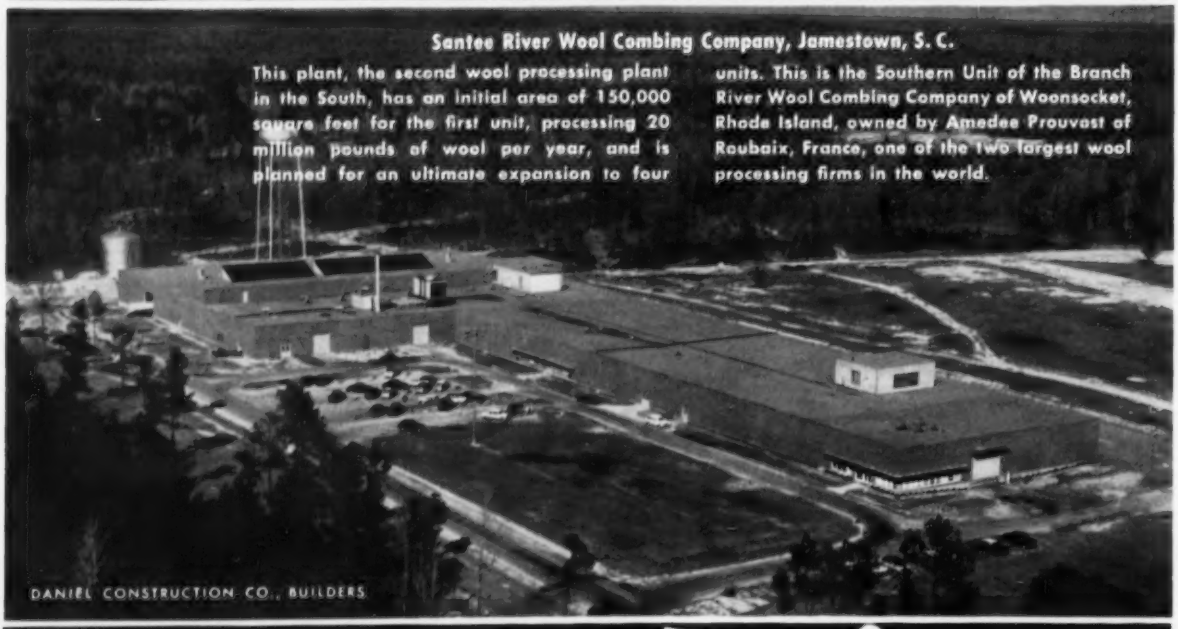
DANIEL CONSTRUCTION CO., BUILDERS

LOCKWOOD GREENE PROJECTS IN . . . . .
WOOL PROCESSING

Lockwood Greene's work, originating in 1832 with the design of textile mills, amounting to a present total of around one billion dollars in value, now includes the first two wool processing plants in the Southeast, here shown, for the world's two largest wool processing firms.

Santee River Wool Combing Company, Jamestown, S. C.

This plant, the second wool processing plant in the South, has an initial area of 150,000 square feet for the first unit, processing 20 million pounds of wool per year, and is planned for an ultimate expansion to four units. This is the Southern Unit of the Branch River Wool Combing Company of Woonsocket, Rhode Island, owned by Amedee Prouvost of Roubaix, France, one of the two largest wool processing firms in the world.



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OVER A CENTURY OF INDUSTRIAL PLANT EXPERIENCE
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Continuous management services from site selection to plant completion.
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ARCHITECTS – ENGINEERS

Purchasing Director Stiles

Profit from Utilizing Vendors' Services

How many times in the course of an interview with our vendors' representatives have you heard the well worn phrase, "If there's anything we can do to be of assistance, just let us know"? As purchasing agents, we tend to accept that statement more or less as the routine closing remark of an interview. To the alert purchasing agent this offer of service contains fertile ground on which a crop of attractive profits may be cultivated. . . .

There are many ways in which we can utilize vendors' services for profit. Some areas are readily apparent while others are more obscure and require searching out on our part. Other opportunities lie buried in the various details and procedures of our own operations. . . .

I am sure most of us here have at one time or another been deeply engrossed in a market survey or value analysis study that called for extensive researching of publications and reports from which meaningful figures were to be extracted. Sometimes finding the right publication was the hardest part of the program. Much time and effort can frequently be saved on such projects by first calling on your suppliers to furnish up-to-date data and statistics.

Since their interest in a given market or commodity is presumably as great as your own, reliable and accurate information is often forthcoming promptly and in better form and greater detail than if you had spent days trying to assemble the same facts. A profit for you? Sure. The time saved can be utilized for other profit-returning activities.

Let's take another example. Company A had been buying containers in large volume from Company X and, as part of Company A's program, had a packaging development group quite active in its plant. A part of this group's time was spent on the design, testing, and reporting of new packaging ideas and techniques. The leader of this team in Company A's plant had an approved project for the purchase of certain package testing equipment including a vibration machine.

In the course of his interview with the plant purchasing agent, the sales representative of Company X learned of the proposed purchase. Recognizing an opportunity, the sales representative suggested that his company be allowed to do the testing for Company A. His proposal was that his company make the sample packages, send them to Company A in their regular truck shipment and have the loaded sample packages returned in Company X's otherwise empty trucks for testing on Company X's equipment. This vendor even offered to allow Company A's personnel, if so desired, to run the test on X's equipment. Needless to say, the offer of service was utilized for profit—profit for both concerns in this case.

Another example: Control labs in many plants are constantly required to run routine analysis on incoming raw materials. Occasionally, because of the time involved in such analysis, cars are delayed in unloading. Frequently, savings are available by having the vendor run the analysis for you, giving you a report on each car shipped if desirable. If you have some peculiar twist to your analysis, furnish the vendor a copy of your specifications.

In some instances, it may be that your method of analysis is different. Even in such an event, it is highly probable your supplier will be pleased to do the job for you as you want it done or as you have been doing it yourself. . . .

There are countless other rich fields for cultivation. For instance, have you made full use of vendors' offers to serve you better by stocking in their own inventories items normally carried in your own stores with slow turn over? In your stores inventory there may be emergency items, normally of long delivery, which for protection you need to have on hand for instant call. It is expensive to tie money up in this sort of inventory not only from the standpoint of the cost of the material but also because of occupancy charges. Perhaps your supplier will be willing to stock such items for you.

Have you arranged to reap the savings in your vendors' offers to reduce partial shipment and to withhold billings until an order is shipped complete? Everytime you process an invoice for payment an expense is being incurred. When you multiply this by the added work load in your receiving department and accounting department, a cost reduction worth trying for is easily recognized.

Are you utilizing to the fullest extent your suppliers' offers to palletize or unitize incoming shipments? Materials handling represents an exceptional area for mutual effort by you and your vendor. Unit loading, the development of containers more suitable to your particular needs, even reusable containers are service functions you can develop with your supplier.

Can you make even more use of your suppliers' technical personnel and research facilities in solving mutual and related problems? When was the last time you had vendors' personnel helping you in your employee training programs?

These and other areas offer an almost unlimited opportunity for real and material savings through utilizing vendors' services. Some are large with rewards easy to see, others are smaller with less noticeable returns. Use them all.

Remember, there is no soil bank program or acreage allotment provision restricting your endeavor. Your return will be in direct proportion to the crops you sow and how well you cultivate and nurture ideas. The opportunities are all around you for a good harvest. Be sure you reap a full measure.—*Norman C. Stiles, director of purchases and traffic for the Chemstrand Corp., at a recent meeting of the National Association of Purchasing Agents.*

They proved it in Klopman Mills, Inc.—Asheboro, N. C.

FINAL INSPECTION—Portable directional General Electric PAR lamp insures detection of imperfections in finished cloth. A luminous panel in back of the fabric, lighted by nine G-E 40-watt fluorescents, bares even the smallest flaw.

How General Electric lamps help detect troubles *before they get costly!*

AT KLOPMAN MILLS, INC. Asheboro, N. C., where delicate fabrics are created for women's and children's wearing apparel, a vital step in production is catching defects before they get costly. To help improve their inspection techniques, Klopman Mills took a close look at the lighting throughout the plant. Today, by the time fabrics reach the luminous panels of final inspection, shown above, they've spent much of their life under the revealing glow of specially selected lamps.

GENERAL ELECTRIC four-foot fluorescent lamps provide general inspection lighting—and G-E PAR-38 lamps provide grazing light so inspectors can quickly detect broken fibers. The PAR-38's are also used in sizing, grading and final inspection. These are critical seeing jobs where small variations in thickness or twist of yarn, or a broken thread, can ruin an entire run of fabric. The lighting techniques used at Klopman Mills, Inc. assure their customers that quality control is the best guarantee of a quality fabric. It may pay you to take a closer look at your lighting, too. Call your local General Electric distributor for the right answers to your lighting questions. General Electric Large Lamp Dept. TI-4, Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL ELECTRIC

AN EXECUTIVE *Views*

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

"... so he killed the goose that laid the golden egg ..."

BACK in the days of yore, but still those are living who can remember, there lived a man who raised many oxen and sheep and by honest toil and fair reasoning converted the walking animals which fed upon the land and gave no man a job into a mill which changed the fiber cotton into fabric and provided work for many and plenty for all.

This man did have two sons. These boys did play as was their wont and they did work at times to please their father and to learn the making of the fiber cotton into fabric and by their toil to give more jobs to others so that the plenty became more and happiness abounded for many moons.

With father and son and son working toward the same goal and with those who formerly had naught but now had plenty working with father and with son and with son, the mill for changing cotton into fabric became two and happiness and plenty were there for more and more.

As boys of today think, so thought the boys in the days of yore and they reasoned that my father hath plenty and our people have plenty but we are our father's sons and our father is getting older by the day and does not need to spend so much so why does he not pay us more than he pays our people for now is when we have so much to buy and when we are old there will be less need to spend.

Their father was one who came along before the days of yore and though he listened to his sons he could not agree with them and said that as long as they did the same work as his people his sons would have plenty like all his people but no more than his people. The sons became displeased with their father and said that he was of the old school of thought which meant that fathers should give their children more and more

but the father asked them what one of his people who made cloth would do if he wanted more and more and the sons without thinking said that he would work harder and harder and the father told his sons that they had answered their own problem.

THE SONS had their problem solved but they were most unhappy at its outcome and they suggested to their father that since they were his rightful heirs that the father should divide his holdings among them while they were yet young enough to enjoy the fruits of the father's labor.

The father loved his sons and the next day that the factory for making cotton into fabric was closed he took his sons unto his farm and on the way the father explained that he understood the reasoning of the sons who wanted him to divide his estate among them and they were most happy at the father's evident change of heart and they knew that he was taking them to the farm to divide his estate among them. And the father took them to a section of the farm wherein were fenced in two cattle and two sheep and pointed them out and then showed them another section wherein were fenced in two more cattle and two more sheep and he told them that they would have the same opportunity as he had when he was growing up and that the cattle and sheep were theirs and if they as his sons wanted more and more that the opportunity was there for them because that was the way he had started and he knew that richness could be theirs just as it had become his.

The sons were most unhappy. Not only did the sons not have a division of their father's estate and more than plenty for their needs but now they had a family of cattle and a family of sheep to support from their earnings made in the mill which changed cotton to fabric.

The older son considered his needs more immediate than the younger son and he first arranged to part with the sheep so that he

Aerial view of Cone Mills' White Oak plant, Greensboro, N. C. Air conditioning system designed by Ben Smith, Greensboro; installed by Conditioned Air, Inc., Greensboro.

Auto-AIRMAT filters supply 1,050,000 cfm of lint-free air to Cone Mills' White Oak plant

Lint can't get a "toe-hold" at Cone Mills' modern White Oak plant at Greensboro, North Carolina. AAF lint filters—automatic Auto-AIRMATS—stand guard on 15 air conditioning systems, supply more than a *million cfm* of clean, lint-free air.

Auto-AIRMAT is the only filter designed to remove lint fibres from the air and clean itself at the same time! Airmat filtering material, unwinding from roll at top of unit, moves automatically down the face of the filter, collecting lint all the way—re-winds into easily-disposable roll at bottom.

If you've got a lint problem, investigate the lint filter—AAF's Auto-AIRMAT. Call your local American Air Filter representative, or write direct for Bulletin 234.

Herman Nelson Unit Blowers

Herman Nelson Propeller Fans

AAF herman nelson

American Air Filter
COMPANY, INC.

275 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.

— BETTER AIR IS OUR BUSINESS —

Illinois Heating Specialties

Air Filters and Precipitators

might enjoy the proceeds of his business deal but in enjoying the fruits of his parting with the sheep he over enjoyed the fruits and was forced to part with the cattle as well so that he was no longer in the cattle and sheep business and therefore had no cattle and sheep worries and could spend all of his spare time complaining that his father would not divide his estate.

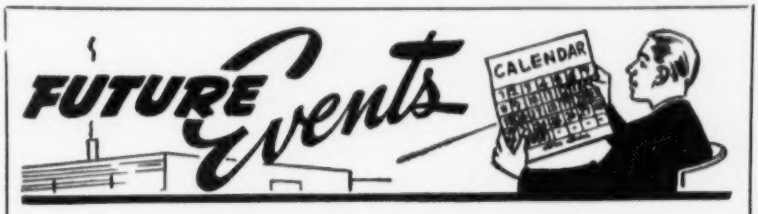
The younger son though disappointed at not having a division of the father's estate knew that he had to have feed for his cattle and feed for his sheep and so worked harder and harder in the mill which changed cotton into fabric and he provided for his sheep and he provided for his cattle so that they remained in a happy frame of mind and eventually he discovered that his herd of cattle and his drove of sheep were increasing and he actually was in business but still a long way off from the richness that his father had but that did not seem so important now.

AND YEARS passed and the father growing old could watch with pride that his two sons worked hard in the factory at making cotton into fabric and often pointed with pride when with his friends that both of his sons held positions of importance in the mills and spoke of how his mind was at ease that each son would in time have a mill of his own and would do well at it.

But the father had been around since the days of yore and he knew that running a factory which makes cotton into fabric is no easy job and that it takes experience and that his sons would need help so he took it upon himself to engage an experienced man for each of his factories which make cotton into fabric and his choice was well.

And so the father passed on and left to each of the sons a factory which makes cotton into fabric and an experienced technical man to help them and these experienced men worked hard and had plenty and more and were worth it because the sons also got plenty and more and all of the people who worked at making cotton into fabric had plenty and more and the community prospered.

Each son was in charge of his own factory and each son followed the advice of the experienced man who knew the outs and who knew the ins of making cotton into fabric and then came a time when the people of the world are mad at each other or pretend that they are mad at each other and they argue and they shoot one an-



Date		Event	Location
Apr.	4-6	American Cotton Manufacturers Institute annual meeting	Biltmore Hotel Palm Beach, Fla.
	5	Niagara Frontier Section AATCC (Joint meet with CATCC)	Kitchener, Ont.
	8-11	National Packaging Congress and Exposition	International Amphitheater Chicago, Ill.
	10-12	Alabama Cotton Manufacturers Association annual convention	Buena Vista Biloxi, Miss.
	13	Southeastern Section AATCC	Legion Hall Lindale, Ga.
	25	Rhode Island Section AATCC (Student Night)	New Bedford ITT New Bedford, Mass.
	26	New York Section AATCC	Kohler's Swiss Chalet Rochelle Park, N. J.
	27	South Central Section AATCC	Hotel Patton Chattanooga, Tenn.
	27	Textile Operating Executives of Georgia spring meeting	Ga. Tech Atlanta, Ga.
	23-24	National Knitted Outerwear Association annual meeting	Waldorf-Astoria New York City
	24-25	ACMI Cotton Fiber Testing Laboratory Open House	The Clemson House Clemson, S. C.
	25-27	Phi Psi Textile Fraternity Annual meeting	New Bedford Hotel New Bedford, Mass.
	29	Underwear Institute annual meeting	Traymore Hotel Atlantic City, N. J.
	29-30	Hosiery Industry Conference sponsored by NAHM	Claridge Hotel Atlantic City, N. J.
29 - May	3	Knitting Arts Exhibition	Auditorium Atlantic City N. J.
May	1-2	Fiber Society spring meeting	Clemson House Clemson, S. C.
	1-4	Cotton Manufacturers Association of Georgia annual convention	Emerald Beach Hotel Nassau, Bahamas
	3	Northern New England Section AATCC	Lowell Tech. Inst. Lowell, Mass.
	4	Alabama Textile Operating Executives spring meeting	Thach Auditorium Auburn, Ala.
	17	Hudson-Mohawk Section AATCC	Schuyler Meadows Albany, N. Y.
	17	Western New England Section AATCC	Waverly Inn Cheshire, Conn.
	20-25	National Cotton Week	
	28-29	Market Research Conference sponsored by National Cotton Council	Washington, D. C.
30 - June	1	South Carolina Textile Manufacturers Association annual meeting	The Cloister Sea Island, Ga.
30 - June	1	Tufted Textile Manufacturers Association annual convention	Fontainebleau Miami Beach, Fla.
June	7-9	Piedmont Section AATCC annual outing	Mayview Manor Blowing Rock, N. C.
June	20-22	Southern Textile Association annual meeting	Ocean Forest Hotel Myrtle Beach, S. C.
Sept.	4-6	Fiber Society meeting jointly with members of Textile Institute	Hotel Statler Boston, Mass.
	26-27	Combed Yarn Spinners Association annual meeting	The Cloister Sea Island, Ga.
Oct.	2-3	Chemical Finishing Conference	Hotel Statler Washington, D. C.
Nov.	14-16	AATCC National Convention	Hotel Statler Boston, Mass.

There once was a dishonest guest
Who stole all the napkins with zest
He made off with a batch
In colors that match
*Saying "Coloray match-ups are best!"**

*SERIOUSLY — the great uniformity of Coloray color makes matching up a sure thing. When Coloray is responsible for coloring a fabric, you *can't* have dyeing creases or shaded ends or any variation of color . . . even bolt to bolt! What's the reason? The way Courtaulds' solution-dyed Coloray rayon is made — with pigment evenly distributed through every atom of the fiber. What's the result? A happy state of affairs for mill men (who can fill reorders as reordered). A happy state of affairs for cutters (who can cut more of a hit style and hit the color right on the nose). A happy state of affairs for makers of home furnishings (where matching up of curtains and draperies and slip covers and upholstery is vitally important). Happiness for everybody in soft goods with Coloray rayon . . . the fiber that delivers topnotch colorfastness too!

COURTAULDS'

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Rayon fiber with Captive Color . . . *"can't escape!"*

For further information, write:

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other and those that do the shooting must have clothes to shoot in and bags to carry stuff in and the folks who tell the others to go and shoot collect money from those who do not shoot to buy cloth for the others to shoot in and the mills that were owned by the sons whose father came up in the days of yore made more cotton into fabric than ever before and they prospered.

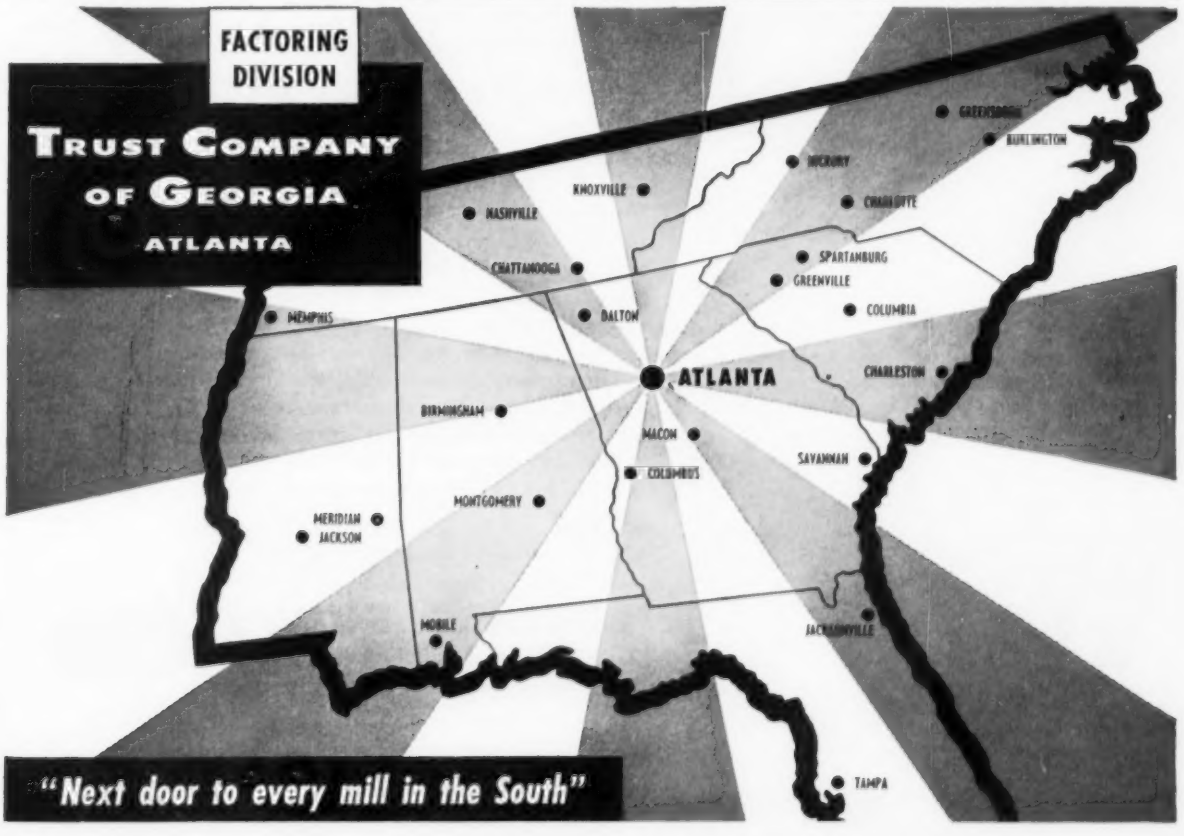
And as the factories for making cotton into fabric prospered the older son went unto the man who was experienced in making cotton into fabric and said that he had been a good man in the days gone by and would have been a good man for his father who came up in the days of yore but the son was letting him go because he felt that anyone could make money during a war and besides the older son wanted to keep the more and plenty that he was giving the man who was experienced in making cotton into fabric. And when he let him go the older son got himself a man who said himself that he was experienced in making cotton into fabric and who would work not for plenty and more but for somewhat less than plenty and would not buy much stuff to keep the mill running which was just what the older son wanted.

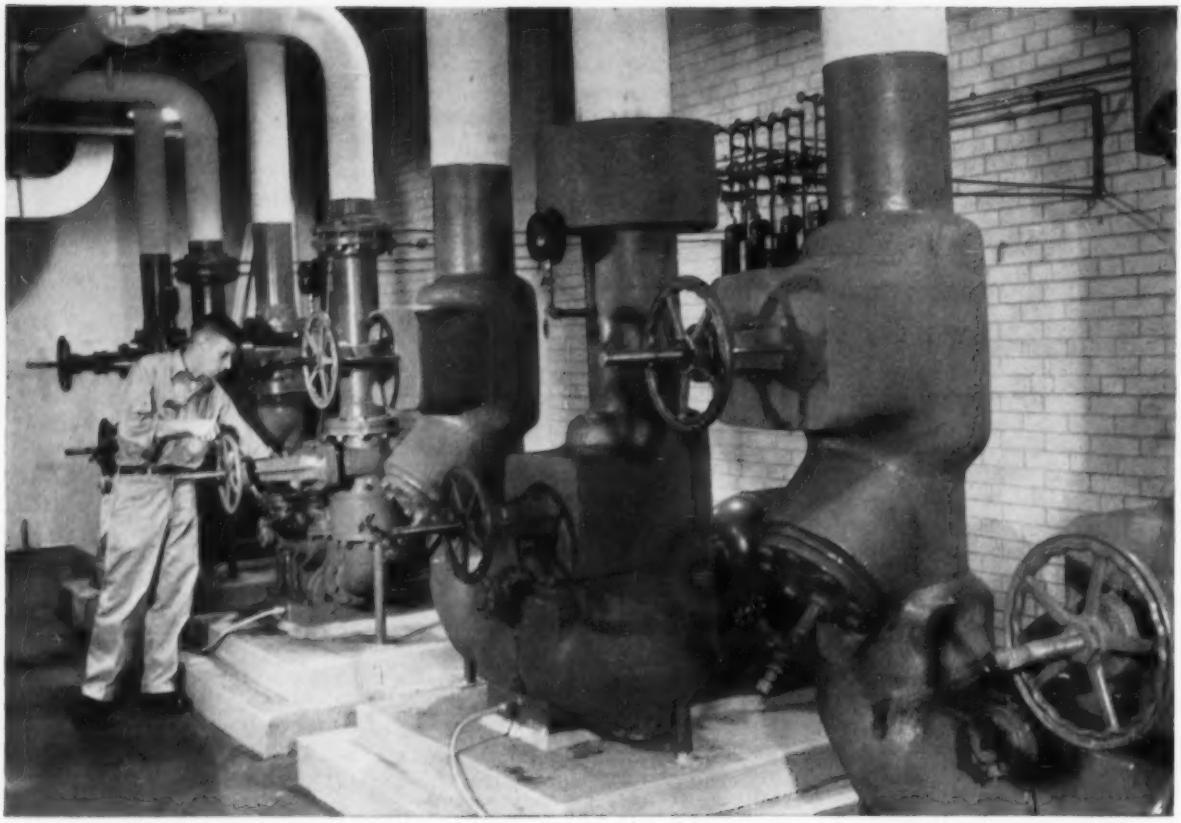
The younger son also went unto the man who was experienced in making cotton into fabric in his mill and said you are doing a good job and you are making plenty and more and worth plenty and much more and as of today you are getting it and we want to stay in business longer and longer and we are making plenty and more than ever so you see that our people share in it and then you spend the rest of it getting this factory for making cotton into fabric in such shape that it will make cotton into fabric better than ever.

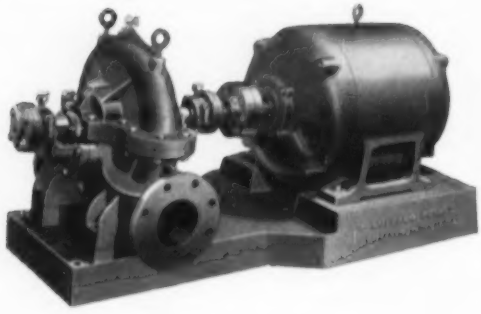
And the older son kept the new man and kept the difference in what he was paying the man who was experienced in making cotton into fabric and he also kept what he had been spending on supplies and he had plenty and more and more until he just about didn't know what to do with it all except he could not keep it all long because he was paying to keep folks shooting at each other while he made cotton into fabric for them to shoot in.

AND LO, the folks who had been doing all the shooting quit shooting and they did not have to buy clothes to shoot in and other factories for making cotton into fabric and the older brother's factory for making cotton into fabric could get all the cotton it wanted and make all the fabric it could make but nobody seemed to want the fabric any more and if they did want some cotton made into fabric they could find so much wrong with it that it came back as fast as it was shipped out and the older brother told his man who was making less than plenty to make cotton into better fabric or get out. The man who was making less than plenty got out because he had had experience before both

(Continued on page 118)







"Buffalo" Type SL Double Suction Pump, industry's choice for clear water service in capacities from 10 to 14,000 gallons per minute.

Impeller and shaft assembly of "Buffalo" Type SL Pumps. Note precision ball bearings, husky shaft, wearing rings and efficient enclosed impeller.

FOR PERMANENT PUMPING EFFICIENCY

Don't Leave Out the "Q" Factor*

"Buffalo" PUMPS like the Type SL Double Suction Pumps above, handling chilled water in a large plant, *assure* this permanent efficiency! Their design and construction go far beyond "good enough". Their ample water passages and well designed impellers — providing smooth hydraulic balance and efficiency — reflect the high standard of engineering, foundry and machining craftsmanship developed in our 80 years of building pumps. We call this standard the "Q" Factor*, and it's the reason behind the permanent pumping efficiency enjoyed by owners of "Buffalo" Pumps everywhere. Write for Bulletin 955 and see why you save by specifying the best!

**The "Q" Factor — the built-in Quality which provides trouble-free satisfaction and long life.*

BUFFALO PUMPS

"Buffalo" PUMPS

Division of Buffalo Forge Co.

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Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

Textile Industries
FOR APRIL 1957

One of the most successful Abney-Erwin public relations projects is the invitational tour program. Once a week managers and/or superintendents of several of the mills invite three or four local citizens to stop by for a tour of their plants. Here, M. M. Payne (right), manager of the Durham, N. C., plants of Erwin Mills, explains the operation of a roving frame to his guests, Durham's mayor, E. J. Evans (center), and one of the city's bankers, J. F. Wiley, Jr. For the mayor's comment after the tour, refer to the next page.

by Chauncey Lever
Director of Public Relations
Abney and Erwin Mills

Exclusive

ON OCTOBER 31, 1956, the public relations department of Abney Mills and Erwin Mills—two cotton textile manufacturing companies with 27 plants employing 15,500 people in twelve South Carolina, North Carolina, and Mississippi communities—was one year old.

How effective have been the efforts of our department, the functions of which are (1) to convey and interpret information about public attitudes and reactions to members of our organization and (2) to convey information and impressions about our companies to the public, could only be determined by obtaining the public's opinion of Abney-Erwin at this time and comparing the findings with the condition which existed prior to establishment of this full time public relations unit. To do this, of course, would be most impractical, if not impossible.

However, if the comments which have been received from citizens of the communities in which our plants are located, the supervisory personnel in the mills, and the operatives themselves can be used as a basis for evaluation, then our first year of operation may be considered to have been a highly successful one.

THE ACTUAL COST of maintaining the Abney-Erwin public relations department is unbelievably low, the primary reason being that a great deal of the program is actually executed by com-

Being a good business citizen is not enough . . . .

We must tell and show outsiders what we're doing, because

THEY'RE FROM MISSOURI!

Inspecting grey goods during a recent tour of Abney Mills' plants in Anderson, S. C., are (left to right): Z. W. Meeks, executive secretary of the town's Chamber of Commerce; Erskine Gallant, executive vice-president of the Gallant-Belk stores; and Dr. W. McLeod Frampton, pastor of the Central Presbyterian Church.

To interest local high school students in a career in textiles, they are conducted on tours through the Abney-Erwin plants. These children from the Stonewall, Miss., high school had just been shown how denims are made in Erwin Mills' No. 8 plant there.

pany executives, plant managers, superintendents, and their associates.

Public relations is considered to be a major responsibility of each individual. The need for a large professional public relations staff is, therefore, greatly reduced even though much of the over-all program must be planned and directed by personnel of the public relations department.

Here is an outline of the program which was initiated during the public relations department's first year of operation:

THE INVITATIONAL TOUR program is one of our most successful public relations projects. Once each week the manager or superintendent of the local operation telephones three or four business men, professional men, and/or clergymen and invites them to drop by the plant at an appointed time for a tour of the operation. The tour is personally conducted by the manager or superintendent. The group is kept small so that he can give individual attention to each participant. The visitors are encouraged to ask questions.

Following the tour, refreshments are served in a conference room and a review of the tour is given by the manager. A manufacturing process folder which outlines the entire production procedure and which includes a sample taken from each stage of manufacturing is presented to each participant so that he might discuss with his family and friends what he has seen on the tour.

On special occasions larger groups are conducted on tours, such as civic club groups, convention delegates, etc.

Representative of the many comments received concerning the tour program are the following:

Durham's Mayor, after a tour of the Durham, N. C., plants of Erwin Mills, stated, "This is one of the finest things Erwin Mills has done toward building community spirit."

A Salisbury, N. C., newspaper official said that the Erwin Mills tour program "is the most progressive in the field of public relations" that had been brought out in all of his experience.

A Duke University doctor who accompanied a group of Duke students on a tour of Erwin Mills, had this to say, "It was a most interesting experience for us. More important than that was the fact that it was a very educational experience for all of us. The explanations given were exactly as I had hoped they would be in that they emphasized the worker and his title."

A mill supply company official, after participating in a tour of the Anderson, S. C., plants of Abney Mills, said, "I have been selling mill supplies for 25 years but had never been through a complete mill. It has been very enlightening to me to be offered this opportunity by Abney Mills to see a modern textile plant."

A Cooleemee, N. C., business man commented, "I was amazed at the operation you have in Cooleemee, and consider the work you are doing as the most important step toward good relations that has ever been taken in Davie County, and in my opinion, the program is creating a most favorable impression toward Erwin Mills."

A Belton, S. C., druggist, following a tour of Abney Mills, Belton, said, "I have been living in Belton for 50 years and this is the first time that this opportunity has been presented to me. I am really surprised at the many processes involved in the manufacture of cloth."

An Erwin, N. C., merchant stated, "I had no idea that it took so much to make a piece of cloth, and I certainly will have more respect for a pair of

overalls. I do not think that I will ever complain again about the price of clothing. The tour program is the finest thing Erwin Mills has ever done."

A Stonewall, Miss., school official commented, "This tour has given us a greater appreciation for Erwin Mills and for cloth."

A Cooleemee, N. C., storekeeper, "Now, I can follow intelligently the discussion of my customers when they talk about their work."

A Woodruff, S. C., teacher, "The tour was very interesting and I believe that the tours will create a better understanding of some of the problems in textiles."

Thus, it would appear that the tour program is an effective public relations medium.

SPEAKERS BUREAU. Another public relations project which has been well received by the citizens of the communities in which our plants are located is our speakers bureau.

These programs feature talks by our supervisory personnel. One or as many as six of our employees might participate in a single civic club program. They might talk on the history of the company, the payrolls, employment, demand for our products, manufacturing processes, contributions of the company to the community, employee benefits, or the free enterprise system.

Any club, organization or school desiring an Abney Mills or Erwin Mills Speakers Bureau program simply extends an invitation to the public relations department which in turn arranges a program with the local manager after accepting a date convenient to the company and the club.

Securing effective speakers is no longer a problem. The supervisory employees have been offered the Dale Carnegie Course in Effective Speaking and Human Relations. Approximately 140 have successfully completed the course and others are currently engaged in the Dale Carnegie program.

Consideration is being given to the possibility of organizing Toastmasters Clubs at each plant location. At certain of our plants, company training in public speaking has been given by our own staff personnel.

Typical of the many compliments received by the Speakers Bureau project are these:

A Mocksville, N. C., farm machinery dealer said, "This is the most interesting program I have ever heard."

A Belton, S. C., minister stated, "The program was certainly informative. Information has been presented with which most members were not familiar. This is a fine job of public relations between Abney Mills and Belton citizens. This Bureau should present programs before other organizations."

A Durham, N. C., banker commented, "This is one of the finest programs I have ever heard. We should have more of them pertaining to our industries in Durham." (This particular man heard our program at the Rotary Club and also attended the Kiwanis luncheon to hear it a second time.)

A Durham, N. C., oil distributor commented, "This is the best program we have had since I joined this club."

An Anderson, S. C., insurance executive said, "This is the first textile program which has been presented before this club in its 15-year history! It was a grand program—both interesting and educational. I wish we could have more programs of this nature."

A Dunn, N. C., lawyer said, "While I knew that the mills were important to Harnett County, I had no idea that the payroll was so large. If the Erwin Mills should close it would ruin this whole territory."

A minister in Lillington, N. C., stated that he had no idea Erwin Mills did so much for people through its insurance and benefits program.

WHAT PLANT MANAGERS SAY. Some representative comments of Abney-Erwin Mills managers concerning the invitational tour and speakers bureau projects follow:

M. M. Payne, manager of the Durham plants of Erwin Mills, said: "The tour and speakers bureau projects have been outstandingly successful. We have received many expressions of interest and appreciation from those who have participated in our invitational tours, and those who have attended the meetings addressed by different members of our Speakers Bureau.

"We feel, too, that the tours of our plants have been morale builders for our employees, as it gives them a boost to know that the work they are doing is appreciated by people from all walks of life."

C. W. Howell, manager of the Cooleemee, N. C., cotton mill of Erwin Mills, commented, "It is quite evident that the people with whom we have talked are surprised that a cotton mill can be such a clean and pleasant place in which to work, with good opportunities for promotion to higher paid jobs. We believe that they appreciate the discussions by our supervisors relating to the various phases of cotton mill operation, and the civic and religious activities of the community."

Speakers on various phases of textile manufacturing are available to community organizations through the Abney-Erwin Speakers Bureau. Here, Joe L. Burriss, master mechanic of Abney Mills, is speaking to members of the Anderson Club of Sertoma International.

M. H. Seigler (left), general manager of the Anderson, Belton, and Courtenay, S. C., plants of Abney Mills, receives a certificate of graduation for having successfully completed the Dale Carnegie course in effective speaking, leadership training, and human relations. Making the presentation is E. K. Bennett, sponsor of the courses in North and South Carolina. Over 140 Abney-Erwin supervisors have completed this course, thus a source of personnel for the Speakers Bureau is assured.

W. H. Miley, Jr., manager of the Erwin, N. C., plants of Erwin Mills, stated in part, "One very significant remark was made by a local minister after completing a tour a few weeks ago. He said that the thing that impressed him most was that while he noticed everyone seemed to be busy, he did not see anyone who appeared to have more work than he could do.

"I am sure," Mr. Miley continued, "that there has been much propaganda put out about our 'heavy work load' and apparently this man had been impressed by this."

W. Calvin McCombs, assistant general manager of Abney Mills, Belton,

SUGGESTIONS FOR SETTING UP A P-R PROGRAM

■ Any company can enjoy the advantages of good public relations if it will make an adequate effort.

No business management is today considered to be progressive and modern by other business managements unless the public likes it, unless its public relations are in good order.

Must Be Planned. Public relations must be planned. Two types of plans may be used: (1) an overall-plan which outlines the entire program for a certain period and which can be revised periodically, and (2) a "project" plan which considers one activity at a time. Both plans should be committed to writing.

The public relations program of work should cover: (a) the need, (b) the goals, (c) the special groups to be reached, (d) ways to reach these groups, and (e) ideas that will help put across the company's story.

Special Publics. The company should direct its public relations program to at least seven special publics as well as to the general public: its employees, the people of its community as neighbors, its trade groups, its customers, its suppliers, its stockholders, the students in schools and colleges.

If the company is to serve its customers with quality products and make prompt delivery of these products, then its employee relations must be good.

The company which does not have friendly relations with the people in its community is likely to have trouble keeping its employees loyal and its labor turnover at a minimum. It will have difficulty in recruiting promising young people. These are only three of the penalties for a poor local reputation.

Objectives. A company which does not now have an organized and effective public relations program might begin by drafting a statement of objectives and sub-objectives as follows:

1. Maintaining and furthering:
   a. The long standing prestige of the company
   b. Good community relations
   c. Good employee relations
   d. The cooperation between the company and opinion moulding groups—press, radio, television, and civic leaders.
2. Sub-Objectives:
   a. Familiarizing the public with the services and the institutional significance of the company
   b. Best serving the community in a lasting manner
   c. Giving recognition to civic accomplishment
   d. Cooperating with community organizations
   e. Making available in the best possible way the services of the mills.

A program of activities to carry out these objectives should then be prepared and initiated.

Abney-Erwin's P-R Director Lever

Public relations is simply doing the right thing and telling the employees and the community what you are doing.

Being a good business citizen is not enough. We must tell the public about it. At the same time, bragging has no place in public relations.

Everyone in the organization is a public relations man—from the president to the learner. The understanding and participation of management are essential. Public relations consciousness must be developed within the company.

The most powerful influence on a company's community standing is what its own employees think and say about it.

"Let your light so shine before men that they may see your good works."

S. C., wrote, "I believe that these public relations projects will create a finer spirit of cooperation for Abney Mills and for the town of Belton."

W. M. Carlisle, manager of the cotton plants of Abney's Toxaway Division, Anderson, S. C., said, "I think the program has been highly successful. All participants have expressed their appreciation for the opportunity to visit the plants. Many of them had never been in a textile plant although they had lived in a textile area all of their lives."

Hanns Bard, manager of the spun plants of Abney's Toxaway Division, Anderson, S. C., commented, "Not only have these tours tightened our ties with the community, but they have opened its eyes to the scope of our operation and its economic impact on the city. An unexpected bonus was obtained in the reaction of our employees. It instilled in them a feeling of pride and of belonging, two factors so important in the relationship of employee and employer."

NEWS BUREAU. Our news bureau is an important part of our public relations program.

News releases, photos, mats, and features are sent to newspapers, magazines, trade publications, wire services, radio stations, and television stations.

Special invitations are sent to newspaper, radio, and T.V. representatives to attend company affairs.

We subscribe to some twenty daily newspapers and an equal number of weekly newspapers which serve the communities in which we have plants. We do this so that we can keep abreast of the activities in these various communities, so that we can keep informed of the editorial policies of these newspapers, and so that we can clip any references to our plants or personnel. A permanent scrapbook is kept of the items clipped from these newspapers and the various trade publications to which we subscribe.

OTHER P-R ACTIVITIES. Following are other phases of the Abney-Erwin Mills public relations program:

Donations. Our donations program is two-fold. First, there are the direct monetary contributions to churches, charitable organizations, civic projects, schools, colleges, etc.

Equally important is the personal assistance by officials and employees in organizing and conducting drives, and the company's help in obtaining contributions from employees.

Company Publications. Our company publications are mailed not only to employees, but to community leaders, stockholders, and customers. They have been well received and many complimentary letters are received from the general public concerning the monthly magazine, *Quills*, and the weekly newspaper, *The Stonewall Item*.

Advertising. We engage in three types of advertising: (1) product advertising, which promotes the

Mrs. Doris Taylor of the Abney-Erwin public relations staff clips an item about one of the company's mills from a newspaper for pasting in the scrapbook which serves as a permanent record of news published based upon releases prepared by the department.

Typical of the news releases prepared by Author Lever's department are these two. Note that they are typewritten and double-spaced, the way editors prefer to receive copy. To provide the number of copies of each release required, an expensive duplication process is utilized.

sale of goods; (2) institutional advertising, which creates in the public mind friendship and respect; and (3) public relations advertising, which performs a service for the public (get out the vote, drive safely, health advice, read the Bible, etc.).

Exhibits and Special Events. Our various exhibits and special events include: fair booths, banquets, athletic teams, sponsorship of big league baseball broadcasts, Industry-Education Day, Clergy Day, etc.

Audio-Visuals. We use an audio-visual slide film for two purposes: (1) employee orientation and (2) an adaptation for civic club-type meetings. This film features the history, operation, departments, and benefits of the company. It is shown before employees, service clubs, professional societies, women's clubs, trade meetings, and schools.

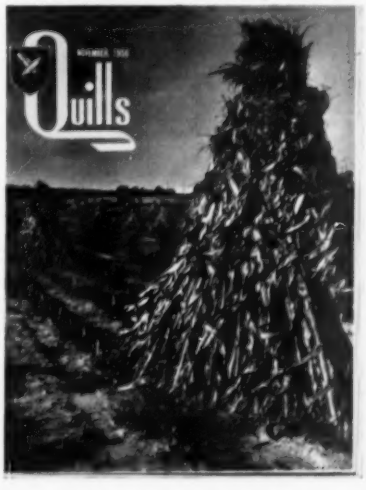
Special Publications. Abney Mills and Erwin Mills have a number of special publications.

The "Welcome To Erwin Mills" folders are designed for distribution to each visitor to the various Erwin Mills plants. The folder lists the names of the people to contact at the particular plant, and invites the visitor to make himself or herself comfortable in the visitors' lounge while waiting to see one of the company officials. Other features include a description of the individual community, statistics concerning the Erwin plants located there, the number of employees, annual payroll, products, and other information. Also listed are the other locations of the plants in the mill chain, and its sales offices in New York City. The pamphlets are localized by substituting the names of the local communities, the local plant staffs, community descriptions, and local statistics.

The product sample folders give a resume of the complete manufacturing procedure and actual samples of each production process are included in small glassine envelopes. These are used in the tour and speakers bureau projects, and to answer requests from school children.

Various employee indoctrina-

Community leaders, stockholders, and customers—as well as employees—are on the mailing list to receive company publications. "Quills" (left below) is a monthly magazine, and "The Stonewall Item" is a weekly newspaper.



THE STONEWALL ITEM
From The Manager's Desk
Annual 25-Year Club Dinner Will be Held Saturday Night
Square Dance
Enterprise Footballers Entertained at Dinner
Plan Drive For Members
Local Cagers Win Opener

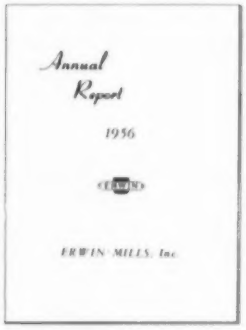
OTHER ABNEY-ERWIN PUBLIC RELATIONS MEDIA

Exhibits

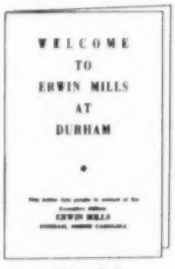
Public Relations Advertisements

Institutional Advertising

Product Ads



Annual Reports



Special Publications

tion booklets include safety and benefits program brochures, etc.

The Annual Report highlights, of course, the earnings, prospects, future plans, and problems of the company. It is sent to stockholders, friends of the company in the community, customers, news media, and other companies.

Employee Meetings. A number of employee meetings are held each year. These are also public relations occasions. Such meetings include 25-Year Club Banquets (public recognition for long service), fishing clubs, employee social groups, golfing clubs, etc.

Contests and Awards. Awards are given for community service, suggestions, outstanding safety records, long service, fishing (fishing clubs), and athletic accomplishments.

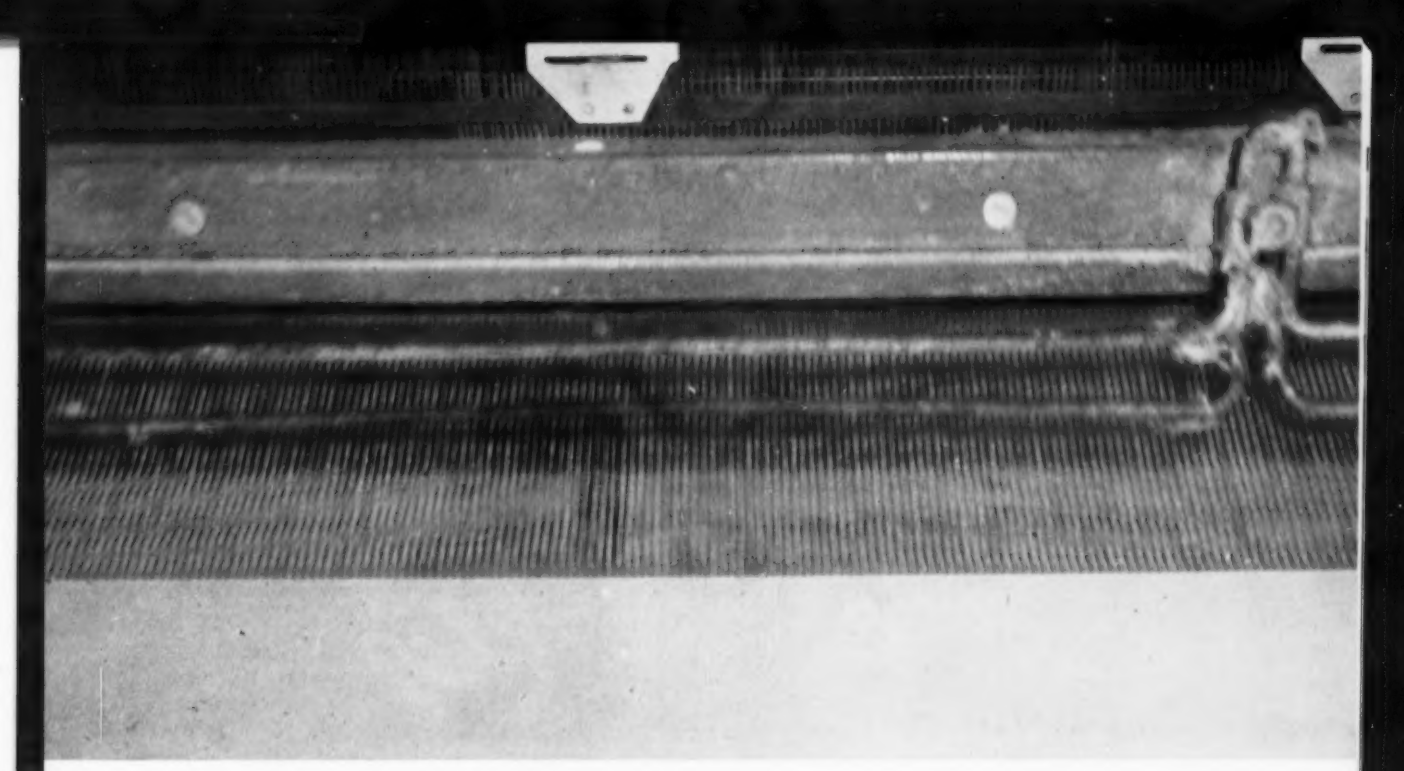
Letters. Letters are written to community leaders to keep them advised with regard to company activities and policies, (i.e., change in payroll date, or threat of Japanese textiles, etc.). Letters are mailed to stockholders to keep them informed as to the company's earnings, prospects, future plans, and problems. Employees receive letters from the company concerning policies and other matters of interest to them. We send prompt replies to school children and others requesting samples, photos, or booklets.

Bulletin Board Notices. The bulletin board can become a plant newspaper if properly utilized. Items can be featured such as the history and growth of the company, other public relations messages, safety, waste, etc., posters, news releases, clippings about the company, product, or personnel, and company products in some instances can be mounted on the bulletin board.

Representation in Trade and Professional Associations. Abney Mills and Erwin Mills officials encourage representation in trade and professional associations. The two mill chains are represented in many organizations, such as the American Cotton Manufacturers Institute, the National Association of Manufacturers, the South Carolina Textile Manufacturers' Association, the American Public Relations Association, etc.

Management Memorandum. A management memorandum is used to keep key personnel informed as to all public relations activities. Reproductions of important clippings are circulated for the information of key officials.

(Continued on page 137)



Bothered with filling bars or cracks in corduroy? Here are some tested tips which may help

CONTROL CORDUROY QUALITY

Staff Prepared Exclusive

WHILE THERE are some weaving defects common to all woven fabrics, and some weaving practices common to all weaving mills, there are a few weaving defects and practices peculiar to corduroy or other cut-pile fabrics, some of which are discussed, in both theory and practice, in this article.

In one southern cotton mill where four-harness corduroys are produced, management has worked out a system of adequate control over such corduroy defects as cracks and filling bars, and of cloth face in general.

Not only must corduroy possess a near-perfect face, it must lend itself to cutting with a minimum of resistance to guide penetration, and with a minimum of stops.

Following are data regarding one corduroy fabric made at this mill and the looms on which it is produced

Fabric style	Corduroy
Construction	87 x 128
Width, inches	44
Filling yarn count	21.25s
Filling TM	3.87
Warp yarn count	26s
Size pick-up, %	12.5 to 13
Wales per inch	14.5
Reed, dents per inch	20.30 (0.175" wire)
Cloth weight, yd/lb	1.82
Loom model and width	50" Draper X2
Loom speed, ppm	173

The cotton used for both warp and filling yarns is Strict Low Middling grade, and 1 1/32" to 1 1/16" staple. New crop cotton is not mixed in the 24-bale lots on the opening room floor with old crop cotton.

Formerly this was done, but filling bars turned up here and there — even with the best of care in "feathering" the new cotton into the old. The practice now is to break out the old crop cotton throughout the plant and thread in the new crop cotton behind it. Management states that the system is laborious, but is preferred any time to filling bars.

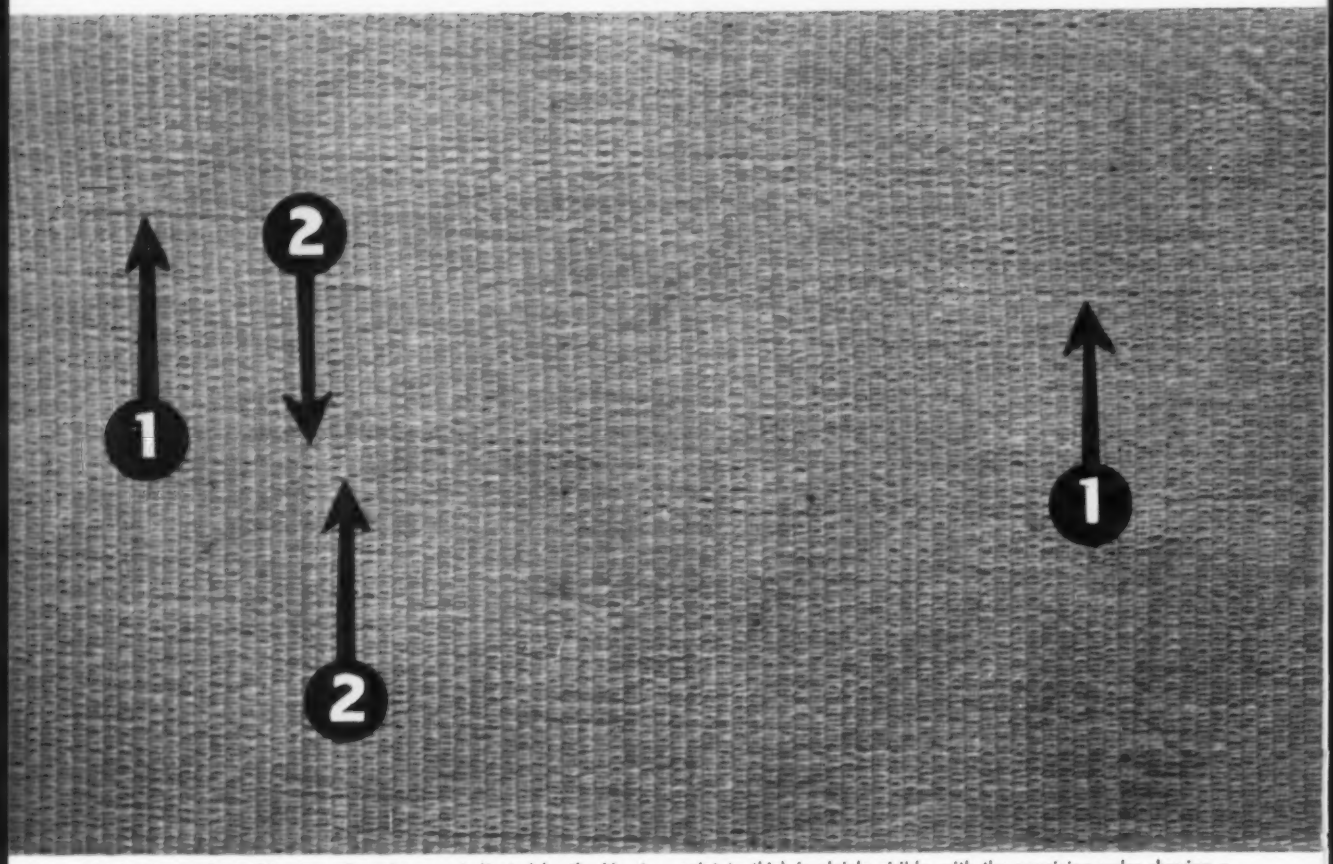
In addition to maintaining a 24-bale mix with the bales staggered so that they will not run out together, further precautions are taken in the card room to make sure there is no sudden change in stock for the corduroy filling.

Here is the method employed. Picker laps are made on all three shifts, being marked so that operatives know on which shift they were produced. Some laps from each shift are kept for use on other shifts.

In the card room each row of cards is given a number—1, 2, 3; 1, 2, 3, etc.—and only the laps made on the shift corresponding to the number of the card row are placed on those machines. Thus, cards on Row 1 use only laps made on the first shift, those on Row 2 the second shift, etc.

The card sliver is then blended at drawing so that there is always a blend representing equal portions of cotton prepared in the picker room on the first, second, and third shifts.

Filling bars can also be caused by singlings on drawing or mix-



Note the cracks in this piece of corduroy as indicated by the No. 1 arrows. The "railroad" pattern in alternate wales (No. 2 arrows point to this) is plainly visible, with the remaining wales showing a smoother pick arrangement.

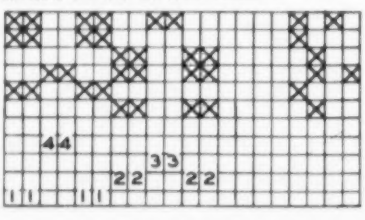
ing of bobbins of roving that are heavier, lighter, or of different stock. Yarn within a total range of one count will usually not cause trouble, but if the count varies much more, bars will show up.

CRACKS in the fabric face are minimized by rigid control of the factors which lead to their creation — the filling counts are kept within a close range, bulldog temples keep the cloth width under control, harness settings and timing are maintained within close limits, and filling tension (spun filling) is guarded with care.

The very nature of the corduroy weave lends itself to cracking. With (in this case) 128 picks per inch being inserted in the fabric, the cloth becomes a filling-face fabric from the sheer number of the picks per inch. Add to that the fact that the cloth is designed to become a cut-pile fabric, and the exposure to cracks becomes two-fold — there is a "sea" of filling present, and the design literally asks for irregularities in pick alignment.

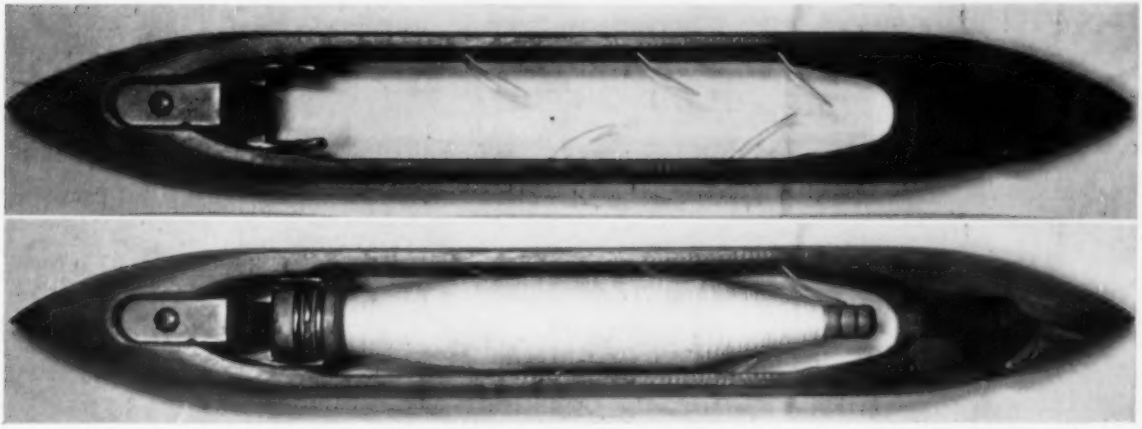
Note in an accompanying illustration that the drawing-in draft, the cam draft, and the harness draft are given for the four-harness, 14½ wales per inch (six ends per wale) fabric. The alternate wales in this particular design inherently show different patterns on the fabric face. The wales formed by one pair of ends will present an evenly spaced pattern of picks, while the adjacent wale will present its picks in groups of two. This "railroad" pattern is preferred by the cutters who report that this fabric is easier to thread a guide into, but definitely is not the choice of the men who take over after the cutting is finished.

The corduroy weave lends itself to cracking. Looms must be maintained in a condition to discourage this. Here is a four-harness draft suitable for use on cam looms.



Some cracks are inserted just before transfer, so the filling tension at this point must be held to an absolute minimum if the defect is to be minimized. Thus this plant weaves all corduroys with nylon loops in the shuttles, instead of fur or bristles. This helps to keep the filling tension low as the last few wraps of yarn are removed from the quill.

The loops are inserted by the loom fixers who drill each shuttle by template to assure uniformity from fixer to fixer and, of course, from loom to loom. An accom-



Five monofilament nylon loops are inserted in shuttles for corduroy weaving, in the positions shown in the photos above. Holes are drilled by using a template to assure uniformity from shuttle to shuttle. In this case holes are drilled at an angle of 45 degrees to the long plane of the shuttle wall. No other filling tension or slough-preventing devices are used.

panying photo shows how the loops are installed in the shuttle.

HARNESS settings are established with the shed level on the bottom, raised ¼" over the race plate, and timed to level 2¼" from the fell of the cloth. With the fabric being so vulnerable to cracking, the shedding action is most critical to cloth quality. Harnesses must operate to give the same tension to each shed, and to give uniform tension across the entire shed.

The looms are equipped with center filling forks and Diehl power transmitter drives. Aside from those already mentioned, the looms require no special settings; they are maintained in keeping with the general settings issued by the loom manufacturer for looms of that model and order number.

The fabric is likely to show a slight difference in face at each transfer. As one filling package is exhausted, the tension increases right up to transfer time. The full package then inserted unwinds with less tension than did its predecessor. Here again the importance of keeping filling packages wound with uniform tension, and keeping the shuttles maintained to keep the filling running out with the least possible difference in beginning and ending tension, is to be emphasized.

Raw, wet filling is particularly bad at causing this slight difference in face. The filling must be allowed to set long enough after conditioning for its moisture to even out before it is used. The pattern thus formed will not disappear in finishing. The problem is similar to one of "shiners" experienced in filament rayon weaving. The filling is packaged on an 8¾" quill of 1 7/16" diameter.

Everything else being equal, it seems that the problem of cracks is related to the number of picks per inch and the filling size. Thus filling of the size used in this plant covers better at 140 picks per inch. Thus, any combination of picks per inch and filling size which gives the best fabric cover produces fewest cracks.

For 128 picks to be beaten in properly in each inch of cloth, the loom let-off motion must remain "cooperative" at all times. To assure that wavy cloth, or cloth with slightly varying cover, is kept to a minimum, management of this mill requires that let-offs be checked thoroughly at each warp-out. The motions simply must be kept in first-class condition to meet the inherent demands of the fabric structure.

Of course, any evidence of malfunctioning of a let-off motion, or any other motion, is immediately brought to the attention of the responsible supervisor, who has the trouble "shot." Let-offs are overhauled regularly. The cloth room maintains close liaison with weaving. Each two hours the cloth room submits to the weave room a summary of cloth condition.

The formula used for sizing warps for other fabrics woven at this mill is also applied to corduroy warps, with the exception of those to be used in corduroys for one of the company's customers. He specifies that his fabrics be sized with CMC* since they can be desized for finishing without enzymes and present no stream pollution problem.

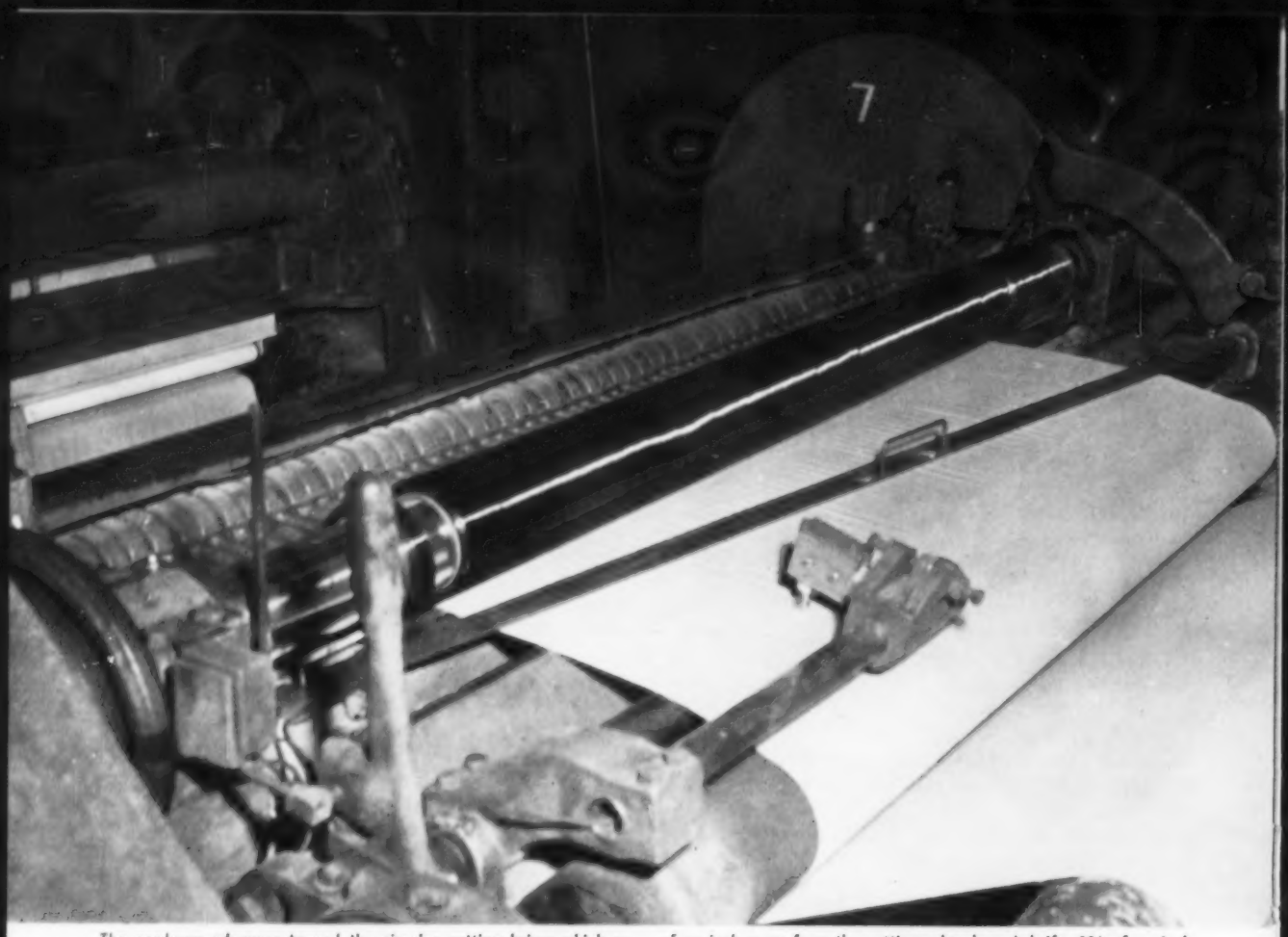
Any irregularities in pickage, such as broken or mispicks, interfere with guide penetration and usually cause the cutting machine to stop for the guide to be replaced. These defects do not disappear in finishing; they must be prevented at the loom.

Prevention consists of reducing the filling stops to the inevitable few, and in matching the picks properly when filling stops do occur. Good loom fixing practice minimizes the former; weaver instruction and supervision control the latter.

Corduroy requires nothing in the way of filling motion and pick motion maintenance that should not be applied to filling motions on any full-feeler fabric. But many such fabrics can be woven with acceptable quality on motions which would produce a foul piece of corduroy indeed.

Thus the rudiments of pick motion maintenance, timing, box leather condition, shuttle tension, power, and reed and box alignment must be pursued with almost text-book perfection.

*CMC Warp Size, made and sold by Hercules Powder Co., is a water-soluble product made from cellulose.



The corduroy advances toward the circular cutting knives which revolve at approximately 2400 rpm and are set between .005 and .007 of an inch away from the cutting edge bar. A knife .001 of an inch out of line can cut through or cause a high race.

HOW THEY FINISH CORDUROY

at Watuppa, a new plant specializing in cutting, dyeing, and finishing this fabric

Staff Prepared

Exclusive

SUCCESS in corduroy finishing must begin with the cutting operation, which demands high operator skills, for cutting defects cannot normally be overcome or obscured by finishing operations.

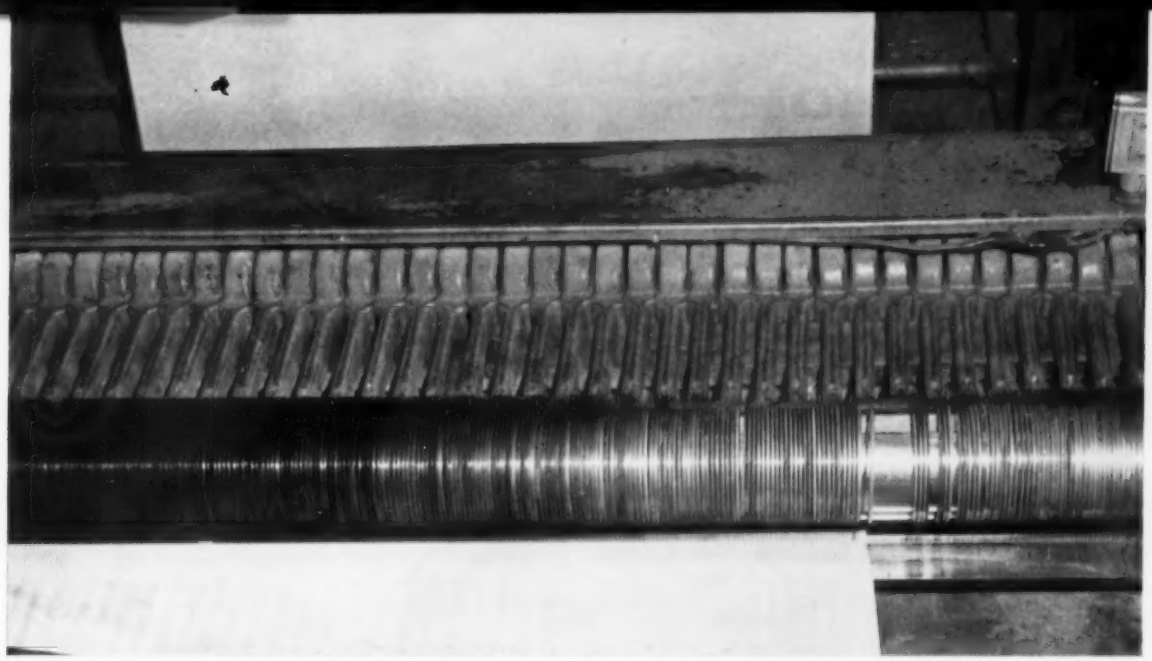
The primary tools of cutting are a guide and a thin, circular knife. A guide, which is about four inches long and resembles a split needle, is inserted into every alternate race across the width of the fabric; and a corresponding number of circular knives are arranged on a shaft that is correctly positioned above the cloth.

During operation, the lower portion of each circular knife revolves in the space between the splits of each guide to cut the advancing race with great precision.

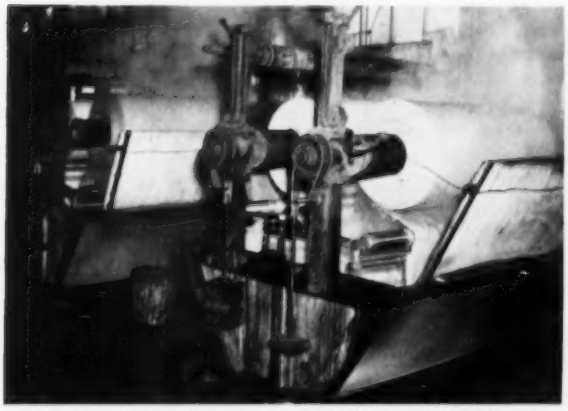
Great skill is required in polishing and bending each guide to the proper degree so that it will remain inside the race. And to facilitate its forward movement in the race the guide has a pointed head.

Honing of each knife is likewise critical—required as a rule every two hours to maintain a uniformly sharp cutting edge. Needless to say, each knife must be properly positioned in the guide slot, and the entire cutting shaft must be maintained a proper distance away from the cutting edge bar.

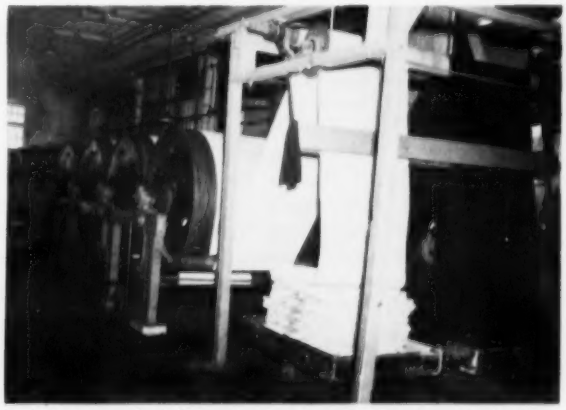
Over the years, speed of cutting has increased very slowly, and today a top speed of only 12 yards per minute is possible. As the required number of cutting knives, 16 per inch for the common pinwale weave, cannot be fitted within the width of the fabric, two passages are necessary with each passage cutting only alternate races. Output is also necessarily low as the process of inserting



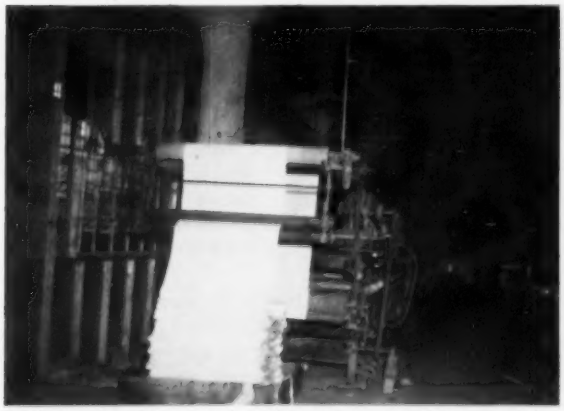
In the photo above the stop motion bar has been pulled away from its running position to expose the outline of the cutting guides as they rest in the wales. The knives are not fixed rigidly on their common shaft. Positioned laterally by spacers, they are inserted in the split guides which, as the guides run in the wales under the filling pile, "steer" the knives to the exact center of each wale. To prevent cutting through the entire thickness of the fabric, the cloth is pulled over a cutting bar and sharply downward in the same motion. The distance between the cutting bar and the knives is determined mainly by the fabric gauge below the pile.



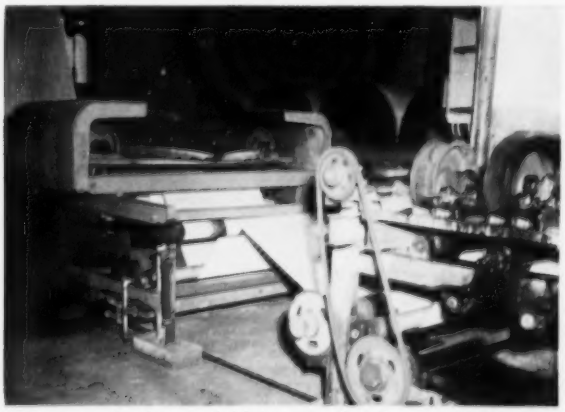
The desized corduroy is scoured on stainless steel Hinnekens jigs to swell the cut fibers and prepare the goods for dyeing. The



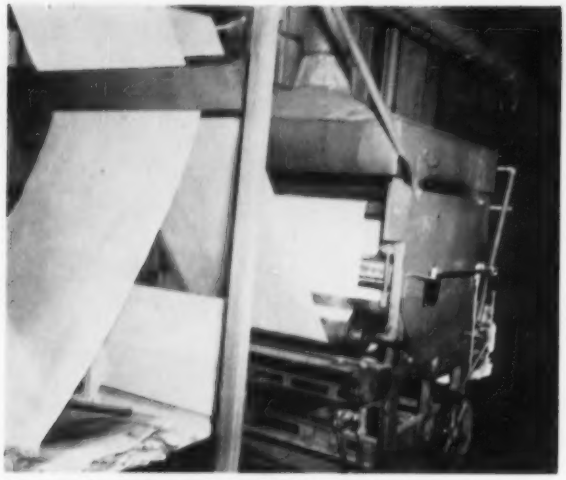
back drying method (above) is used to prevent the cut pile from contacting the drying cylinders. The range accommodates two pieces.



In dry brushing the cut and swollen fibers are untwisted by brushes which move across the width of the fabric. Only alternate brushes move in the same direction. In wet brushing (right) the brushes



move across the dampened fabric in one direction only to raise each fiber and lay it into a somewhat rounded position in the race. The following drying permanently sets pile.



Singeing the fabric is accomplished by passing it through an open flame which "cleans up" the individual races. In bleaching, the goods are passed through a cold peroxide solution (above) and are batched while the bleaching agent acts on the cloth.

guides in the wales must be repeated at the end of each grey piece where the presence of a seam becomes an obstruction.

While cutting output is largely dependent on operator skills, the speed of the machine, and its stop motion refinements, such factors as high quality of fabric and proper warp sizing tend to facilitate cutting and increase output.

At Watuppa Finishing Corporation (cutters, dyers, and finishers of corduroys), Fall River, Mass., electronic J. A. Firsching cutting machines were installed, the first such in the industry, when the plant was opened early in 1956. These machines operate at 12 yards per minute.

These machines are equipped with electronic stop motion devices to stop the cutting operation whenever a guide is forced out of a race by slugs, weaving imperfections, and other obstructions. A contact is made between the steel portion of the forced-out guide and one of several guide bars to activate the electronic stop motion mechanism. A guide forced through the back of the cloth also makes contact with a sensitive bar.

After cutting, the fabric is inspected, mostly for uncut races. These are about ¼ to ½ inch in length and are the result of machine stoppage. They are hand cut with a "pick-up" knife to blend with the machine-cut races. The goods are then put up into approximately 600-yard rolls for further processing.

DESIZING AND SCOURING. At Watuppa the goods are desized overnight, and on the following day are scoured on a jig to remove warp sizing materials, natural oils, and impurities. Thorough scouring is necessary not only to prepare the goods for dyeing, but also to swell the cut fibers.

After a final rinsing, the goods are dried after vacuum slot extraction. Drying is done by the so-called "back drying" method in which only the back of the cloth contacts the drying cylinder. This method is preferred by many corduroy experts to the "back and face" method.

DRY AND WET brushing. Desizing and scouring operations have merely swelled the cut fibers, and the fabric must undergo a series of dry and wet brushings, in proper amount and sequence, to give a pleasing, permanent pile.

In dry brushing, a number of long flat brushes oscillate back and forth across the face of the fabric to raise the cut pile and develop the race. The fabric is then dampened and put through a series of wet brushings in which the brushes, as contrasted with dry brushing, move one way only.

The brushes get under the fibers to raise and arrange them into a somewhat rounded position in the race. The fabric thus acquires a greater smoothness in one direction.

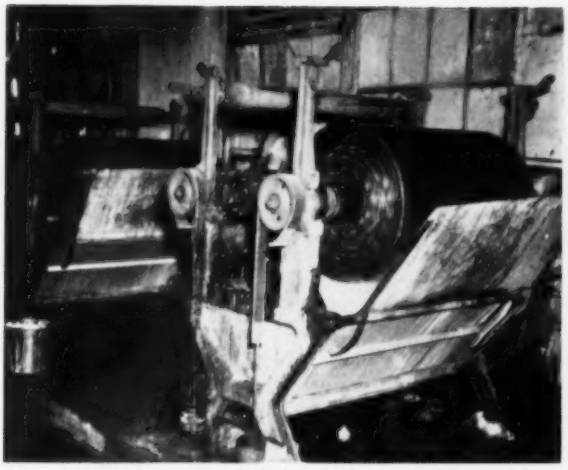
Experience dictates the proper amount and sequence of dry and wet brushings necessary to untwist the fibers and to insure that each fiber in the race is picked up to become a part of the pile.

Insufficient or improper brushing can cause matting of fibers with some of the unbrushed fibers falling back into the hollows between the races, to produce an undesirable over-all effect. Watuppa has arranged its brushing equipment in tandem to insure quality uniformity from lot to lot.

The wet brushing operation, which tends to complete the rounding out of the race, is followed by a drying operation which sets the pile permanently for dyeing.

SINGEING, bleaching, and dyeing. Despite the many operations given to produce a pile, the brushed and dried fabric must be singed to clean up the individual races. The fabric is then peroxide-bleached in the cold, rinsed and dyed on the jig. The most common dyestuff classes used are after-treated directs, vats, sulfurs, and naphthols. After the dyeing operation the fabric is dried and framed to desired width. Usually, it is then passed through a series of circular brushes, inspected, and made ready for shipment.

KNOW-HOW and constant supervision keep seconds at a minimum. During wet processing operations, great care is taken to prevent the formation of creases, for these are almost certain to show up on the face of the finished



After a thorough scouring the fabric is dyed and then passed over an inspection table where it is examined for any possible defects.

fabric as glazed marks.

And perhaps one of the most critical phases in corduroy finishing, which requires know-how and expert supervision, is that of properly and permanently setting the pile before dyeing. Otherwise, the fibers will shift at random during subsequent processing to present a cloudy and uneven appearance in the finished fabric.

Coupled with these problems, cited as major ones, the processing of corduroy, in contrast with other type fabrics, actually entails a loss in yardage. This means that greater attention must be given to critical processing steps in order that the seconds yardage is kept to a minimum.

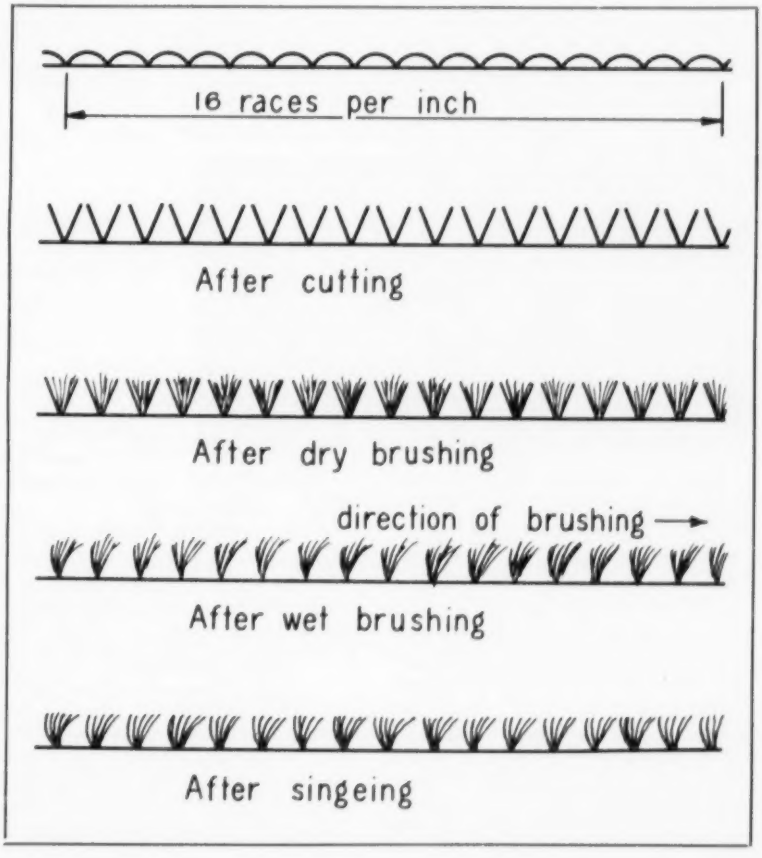
While there is a gain of about 1% in length upon cutting, this gain is actually a false one for a length of cloth, approximately 16 inches, is required to go around the carrier rolls at each end of the grey piece. These 16″ lengths cannot possibly be cut and must be considered standard losses.

Further, in desizing, scouring, and drying operations, fabric shrinkage in length amounts to approximately ½%; and a drop from 39¼″ to 35½″ in width results. Likewise, the brushing and dyeing operations tend to further decrease the original grey yardage. And finally, in finishing the fabric is stretched to a width of 38″ to cause a further slight decrease in length.

In order, then, to produce 98 yards of first quality corduroy (considered about the maximum obtainable) from each 100 yards of grey fabric, a thorough knowledge of each operation is required along with a maximum amount of supervision.

PRODUCTION at Watuppa balanced with other fabrics. In addition to processing corduroy, Watuppa balances its production by processing failles for the shoe lining trade, and seat cover materials for automotive use.

These exaggerated drawings illustrate the various conditions in which the corduroy wales exist, beginning with the uncut wale at the top. Note that after singeing the individual wales take on a neater appearance from the loss of "wild" or protruding fibers. The nature of the brushing operation while the fabric is in a dampened state imparts a greater smoothness in one direction.



"Standard" wool fabrics

A survey of mill methods which will interest woolen and worsted mill executives, including all department heads, finishers, sales personnel

Staff prepared
Exclusive
Part 1

COMPARED with other systems of cloth manufacture, it would seem that the only thing standard about making woolens and worsteds is the fact that there are no standards.

Within most fabric classes, wide variations exist in choice of stock, yarn manufacturing details, weaves used, finishing procedures, and even nomenclature; these conditions vary from mill to mill and often within the same mill in cases where economic requirements or raw material grades fluctuate.

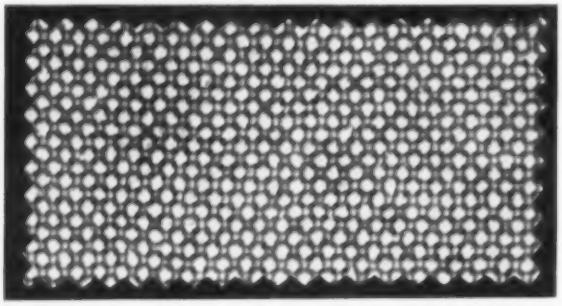
Many times, end product results depend more on finishing than on the techniques of planning and executing the woven fabric; in both cloth manufacture and finishing, "the feel of the fabric" usually has more influence on manufacturing than any other single factor.

On the woolen system the selection of stock, blending, carding, and spinning are probably the critical manufacturing steps; in worsteds, it is more a question of fabric design and weaving.

In both systems, cost of manufacturing usually dictates if a fabric of a certain weight is made from stock and counts of a particular specification, fabric texture, and finishing routine, or if the same weight is arrived at by using better stock, finer yarns, increased ends and/or picks per inch, and possibly more painstaking, higher shrinkage finishing.

Considering these variations and the reasons for variation, the following are descriptions of several well known woolen and worsted fabric classes; particular emphasis is directed to those manufacturing procedures which make the fabrics what they are.

BIRDSEYE SUITING



Birdseye	
Finished weight, ounces	13-13½
Ends per inch in loom	61
Picks per inch in loom	56
Warp yarn stock	64s
Warp yarn count	2/32s worsted (12.5T-S)
Filling yarn stock	64s
Filling yarn count	1/18s worsted (10T-Z)
Width in loom, inches	68.9
Width finished, inches	58
Weave	see remarks under cloth manufacturing
Remarks	Stock-dyed

Birdseye suiting is a worsted cloth which has a characteristic diamond pattern with a center dot. Birdseyes are similar in appearance to sharkskins, but differ in that they usually are two warp and two filling fabrics of two contrasting colors, while sharkskins are single fabrics which have color effect granite weaves.

A typical birdseye weight is 14½ ounces[1] for 57 - 58 inch width.

Birdseyes are usually used for men's wear suitings, but sometimes are made lighter and in brighter colors for women's wear.

Cloth Manufacture. The outstanding feature in the manufacture of birdseye suiting is weave selection. Usually it is a so-called "double plain" in which a face warp and filling of a color are interchanged with a back warp and filling of a contrasting color in checkerboard fashion to form small squares of two ends and two picks of a solid color.

Typical Finishing Routine. Stock-dyed birdseye suiting is finished

[1]All weights referred to unless otherwise specified are based on a running yard.

are not standard!

in the following manner:

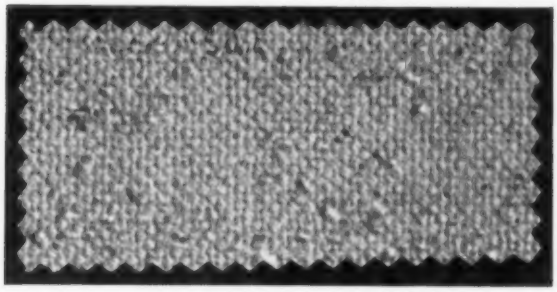
Burling and Mending.
Tacking.
Scouring (thorough).
Wet Decating (for luster in better quality work).
Drying.
Shearing.
Full Decating.
Sponging.
Full Decating.
Final Examining.

NOTE: The three steps — full decating, sponging, and full decating — are sometimes replaced by "London Shrinking."

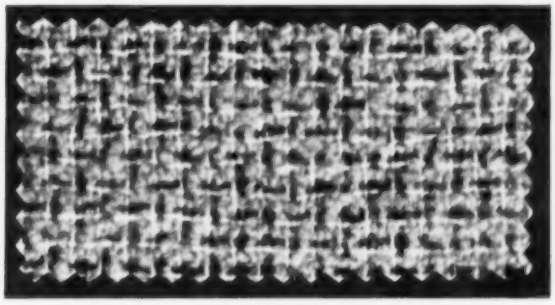
The last three steps in the routine are not the usual mill procedure, but if they are included the goods can be delivered to the customer as "sponged and shrunk ready for the needle." Many mills will follow this routine up to shearing, follow it by full decating, and finish off with rotary pressing. Others will reverse and modify these last two steps, i.e., press and then semi-decate.

The finish resulting from this routine is usually described as "clear."

BOUCLE



Boucle



Boucle tweed

Boucle is a woolen cloth which is characterized by an all-over nubbed effect through use of "boucle" yarns. The raised effect can vary from flat to pronounced (as in poodle cloth), and boucle yarns can be alternated with smooth yarn in either warp or filling or both.

A typical weight for 56-inch women's coating is 15 ounces per yard; lighter weights are used for women's suits and dresses.

Cloth Manufacture. The key to production of boucles is the selection of boucle yarns. These are usually made on a novelty twister using two ground (or core) ends, one effect end, and one binder end; the effect thread makes a complete curl or loop at intervals, the ground thread acts as a core, and the binder stabilizes the loop.

When such a yarn has more twist than normal for boucles, producing a "saw toothed" effect, the yarns are called ratine.

There are many variations of these boucle yarns; they vary from 2000 to 3200 yards per pound (common use). A common 3200-yard boucle would consist of a 1/30s worsted core, 1/20s worsted effect yarn, and a 1/30s worsted binder. Also common are cotton core boucles with 50-50 rayon and wool blend in the effect, and a wool binder; the blend effect yarn might also be a 75-25 blend, or 60-40 blend (wool - rayon).

In boucles for so-called poodle cloths, the effect yarn actually forms a loop, doing so by use of wiry yarns such as mohair. Common poodle cloth yarns range from 1500 to 2400 yards per pound.

Wool used in most types of boucle yarns is of a coarse nature, in the vicinity of 50s.

Typical Finishing Routine for piece-dyed boucle fabrics is that listed below:

Burling and Mending.
Dry Cleaning.[1]
Carbonizing.
Dry Milling.
Neutralizing and Scouring.
Dyeing.[2]
Shearing.
Semi-Decate (soft leader).
Steaming and Tentering or Londonizing.[3]
Final Examining.

1. The more recent development of dry cleaning is listed in the routines throughout this article. Its use considers that 80 to 90 per cent of spinning oils used are the mineral type, that tars and paints may also be present in the goods, that these materials are easily and economically removed by cleaning, and that fulling, if required, is made easier.

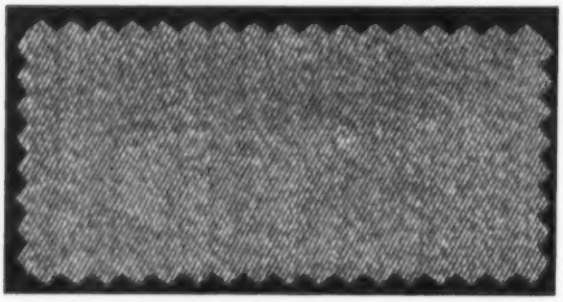
2. Neolan and Palatine dyestuffs are usually used in processing this type of work. They are selected for their level dyeing, and fastness to light and washing.

3. Choice of steaming and tentering or Londonizing depends on the preference and quality of the product. Some boucle routines include rolling the goods in a soft brown leader and wet decating prior to dyeing. This is done mostly for the sake of fabric cleanliness, to prevent excessive shrinkage, and to create luster.

(Continued on next page)

"Standard" wool fabrics *continued*

COVERT



Typical Coverts

Finished weight, ounces	13-13½	17	18
Ends per inch in loom	100	70	80 (finished)
Picks per inch in loom	60	52	50 (finished)
Warp yarn stock	64s-70s	70s	64s
Warp yarn count	2/50s worsted (20T-S)	2/29s worsted	single wool
Filling yarn stock	64s	70s	64s
Filling yarn count	1/21s worsted (12T-Z)	1/16s worsted	single wool
Width in loom, inches	66.3	70¼	——
Width finished, inches	60	60	56
Weave	3x2 twill (63°)	5 harness effect	warp satin
Remarks	piece-dyed	stock-dyed	Doeskin MIL-C-13535 stock-dyed

Coverts are closely woven wool or worsted fabrics with a characteristic mottled appearance and soft handle. They can be made from all worsted, all wool, or worsted warp and wool filling. The warp is usually two-ply of contrasting colors, and the filling is the same or is single to match the dark warp color.

Coverts exhibit a fine, upright, twill line and are sometimes known as the gabardine of the woolen system.

Coverts are used in 12- to 14-ounce weights (for 60-inch widths) for men's suitings, slacks, and trousers; in a 16- to 20-ounce weight range, they are used for men's outer coats. They are also used for women's suits, women's coats, and girls' coats.

Cloth Manufacture. Yarns for coverts are usually made from finer stock, in the range of 64s to 70s. In making woolen yarns for coverts, careful blending is an important point. Card workers are generally set close to the cylinder because of the fineness of the stock.

Considerable variety exists from mill to mill on just what yarns are used; in the woolen system, 3 to 3½ run is an average range for warp and filling.

Coverts are usually solid colored and are either stock- or piece-dyed. More often than not, the goods are stock-dyed.

Because of the softness requirements in the fabric, the least amount of twist possible is put in the yarns, to still get a yarn strong enough to weave.

Typical Finishing Routine, Stock-Dyed Covert.

Burling and Mending.
Tacking. } in the grease
Soaping. } in the grease
Fulling.[1] } in the grease
Scouring. } in the grease
Wet Decating.
Drying.
Shearing (well).
Rotary Pressing.
Semi-Decating (with a hard leader).
Final Examining.

The finish imparted by this routine is clear when applied to a worsted covert; when coverts are particularly smooth, they are known as doeskins.

Woolen coverts are usually slightly napped, and when they have a smooth finish they are known as Venetian coverts.

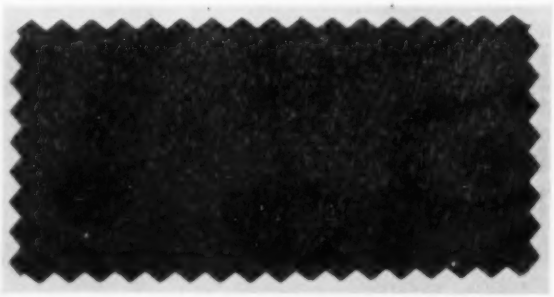
1. Fulling should be done slowly to get a "nice bottom" in the goods. This means that the wool is densely fulled into the fabric and yet not matted or unevenly surfaced (pockiness). More often than not, pockiness is brought out in fulling; however, it is caused by uneven blending.

BROADCLOTH

A broadcloth fabric is an openly woven, woolen cloth of fine merino yarns; it is usually heavily fulled, piece-dyed, closely cropped, and has a nap laid in one direction.

The result is a dense, smooth faced, softly lustrous, and polished fabric. Its main use is in women's wear for coats, suits, and dresses; an 11½-ounce broadcloth (56 inches wide) is typical for this usage. Also, men's formal wear and military fabrics sometimes are made from broadcloth.

Cloth Manufacture. In



Typical Broadcloths

Finished weight, ounces	14	14	18
Ends per inch in loom	56 (finished)	42	25.5
Picks per inch in loom	54 (finished)	44	26
Warp yarn stock	64s	Fall Texas	50% Fall Texas 50% fine noils
Warp yarn count	single wool	5 run wool	2¼ run wool
Filling yarn stock	64s	as warp	as warp
Filling yarn count	single wool	as warp	as warp
Width in loom, inches	——	82	80
Width finished, inches	56	60	60
Weave	plain	2x1 twill	2x1 twill
Remarks	piece-dyed MIL-C-13535* (QMC)	piece-dyed	piece-dyed

*Construction details for this wool broadcloth and other military fabrics cited in this report were abstracted from military specifications and should not be construed as being complete minimum requirements for the fabrics as required by the military in delivery against a contract.

broadcloths, the stock used is critical. Fine stock up to 70s is common. Particular care should be taken in carding to avoid pilling between the cylinders and doffers; a lively fancy with good wire is usually recommended to keep the cylinder from loading. These precautions are required because of the tendency of the short, fine stock to pill.

Sometimes fine reworked stock is used for broadcloth. Yarns made for this fabric class might be said to average 4 to 5 run, both for warp and filling stock.

Typical Finishing Routine, Piece-Dyed Broadcloth.

Burling and Mending.
Dry Cleaning.
Carbonizing.[1]
Tacking.
Dry Milling (dusting).
Soaping.[2]
Fulling.
Scouring.
Extracting.
Drying.
Detacking.
Napping.
Shearing.
Napping.
Teaseling.
Wet Brushing.
Steaming (wet).[3]
Dyeing.
Extracting.
Wet Brushing.
Drying.
Shearing.
Full Decating.[4]
Rotary Pressing.[5]
Final Examining.

1. Many mills have installed Bachmann-Uxbridge tackers at the end of the carbonizer so that carbonizing and tacking are done continuously. This set-up requires one operator for the carbonizer and one for the tacker.

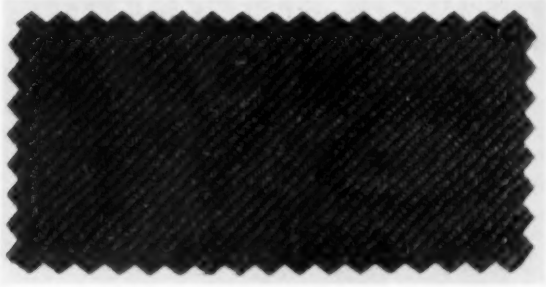
2. The routines cited herein in which fulling is called for consider that the goods are soaped with a synthetic detergent and that the goods are on the acid side because they are subjected to sulfuric acid in carbonizing. The advantages of this are that soda ash neutralizing and extracting after carbonizing may be eliminated, a softer fulled cloth results, and scouring after fulling may be done in about an hour instead of several hours; such scouring can be done in the same soaping solution. Use of this method requires stainless steel equipment.

3. Wet steaming and brushing units should be equipped with vacuum extractors to eliminate the chances of seepage. Also, many finishing plants are equipped with a new steaming unit (Gessner) which handles eight pieces at a time instead of the traditional two.

4. Enhances luster, reduces shrinkage, tailors better.

5. Lightly, this softens fabric after full decating.

SERGE



Serge is a smooth, clear finished, durable worsted fabric that sometimes is woven with either warp or filling of wool to give greater softness. Both face and back have a visible twill line; the fabric is generally piece-dyed, sometimes stock-dyed.

Serges are made from almost any stock for use in an average weight range for 60-inch widths of 12 to 18 ounces in men's, women's, and children's wear.

The finishing procedure for serges is about identical with that used for gabardines; serges and gabardines can be finished together. As in gabardines, the twill line is kept clear and clean.

Typical Serges

Finished weight, ounces	12-12½	15	19
Ends per inch in loom	61	70 (finished)	58
Picks per inch in loom	62	58 (finished)	54
Warp yarn stock	64s	62s	70s
Warp yarn count	2/36s worsted (15T-S)	2 ply worsted	2/23s worsted
Filling yarn stock	64s	62s	70s
Filling yarn count	1/20s worsted (11.5T-Z)	2 ply worsted	1/14s worsted
Width in loom, inches	62	——	70
Width finished, inches	58	56	60
Weave	2x2 twill	2x2 twill	2x2 twill
Remarks	piece-dyed	MIL-C-823B (Type I, Class 5)	piece-dyed

(See Part 2 in next issue for gabardine, flannel, melton, fleece, tweed, and soft finished fabrics.)

The most primitive way of checking the uniformity of yarn is the skeining and weighing method. Yet it is still the most important.

Have you several makes of textile equipment? A man with that problem discusses ways to

Minimize yarn size variation

by W. S. Tsiu

Exclusive

IN THESE competitive days much emphasis has been placed on yarn uniformity. Thus yarns are wound in seriplane for comparison, tested on an electronic tester for CV, as well as skeined and weighed for variations in size.

The latter, although it is the most primitive way of checking the uniformity of yarn, is yet the most important. It not only affects the quality of the fabric woven or knitted from it, but also the production of those processes—since yarns on the high count side will always have weaker breaking strength than those on the low count side.

To cut short the range of yarn sizes involves a great number of factors. In the following only one aspect is discussed: the variations caused by machines of different manufacturers and types.

Often in a mill there is more than one make or one type of a certain processing machine. Thus in a cotton spinning mill, you can see Saco-Lowell of U. S., Rieter of Switzerland, Platts of U. K., or Saco-Lowell of 1912 type and 1956 type that are running side by side producing the same sliver, roving, and yarn.

As we know, machines differ in detail from manufacturer to manufacturer, and from type to type of the same manufacturer (or sometimes from machine to machine of the same manufacture and type due to variations in settings, maintenance, etc.). All these differences produce variations in yarn size. So to make the variations of yarn size small, it would be necessary for us to observe this point when there are machines of more than one type in the mill.

The best solution is, of course, to

use machines of the same manufacturer and type to spin a certain count, provided that the arrangement of the mill permits.

Anyhow, we have instances in which we must spin a certain count of yarn from machines of different makes or different types. In such cases, although we have endeavored to utilize the different draft, twist, etc., to produce the same product, these small differences produce significant variations and wider ranges in yarn size.

Further, not only small differences in draft, twist, etc., produce different sizes of end products. Even if we can use the same draft, twist, etc., we still will produce different sized end products because of different structural details, different drafting efficiency due to difference in mechanical adaptability, etc.

So when we have to spin one count on more than one build or one type of machine, these points should be carefully followed:

(1) When there are to be doublings in the consequent processes, we should try to mix the products during doubling. For example: Mix card slivers in drawing: roving at intermediates, etc.

(2) When there are no more doublings in consequent processes, such as rovings which will spin directly into yarn, we should try to spin the roving from different machine builders or types in different groups of spinning frames. Thus we may possibly minimize these differences by adjustment of draft gears in the spinning frames.

(3) When there are doublings in the consequent process, but due to the layout of the machines we cannot make use of them as in the case where there are two makers of preparatory machines which spin the same counts, but are so remotely located it will be uneconomical to transport the products with each other for mixing purposes. Then in every process we should try to spin the roving as closely as possible to the standard weight set by the spinning plan.

By observing the above points, we may get a more narrowed variation of the yarn sizes.

However which of the three methods we may choose to spin yarns on different makes and type machines, the strict coincidence in the weight of the intermediate products between machines should be followed as much as possible. We should not console ourselves by thinking that while there are mixings in the consequent process, any difference in grain weight thereby will be compensated for, or that if they are independently spun, any difference in grain weight between different makes or types can be corrected in the later stage.

Such thinking always leads to a great fluctuation of yarn size. In actual manufacturing, deviations from standard practice always exist, and the necessity for abnormal steps arises from time to time. For instance when slivers produced from the cards of a Whitin and a Saco-Lowell set differ a little, proper mixing can correct for the differences. If the former produces a 54-grain sliver, the latter a 56-grain, when it is equally mixed in the drawing the drawing sliver will then be 55 grains/yard (our specified standard weight), assuming that the draft is equal to the number of doublings.

But it may happen, through the carelessness of the drawing frame tender, that the card sliver is not fed in equal proportions; or through the card slivers from one set differing from another because of more grinding, maintenance work or repairing, and the surplus of one weight over the other. Thus if the proportions of card sliver fed in is deviated (fed 2 to 4 or 1 to 5 against the standard of 3 to 3) then the finished drawing sliver will not be 55 grains per yard—it deviates from standard.

To detect whether the products from two sets of machines are in coincidence or not still involves some techniques that should not be overlooked. This is especially important in the case of card slivers. As we know the card slivers vary greatly, from yard to yard, and from machine to machine.

This is due to the wide variations of the picker lap weight, the differences in machine settings, in the structural and mechanical details, and in the cyclic differences in weight due to strippings. So when card slivers are sized, we get only an approximate weight.

Even the average of a number of cards varies from time to time. Thus slivers from two sets of cards, which superficially may show no great difference in weight, when carefully checked, may show a difference as much as 5 to 7 grains per yard. A practical way to get the real coincidence of the weight of sliver produced by two sets of cards is by the so-called "control" method.

The method is carried out as follows: A number of randomly chosen picker laps are divided into two groups of equal number. Each group is placed in one make or type of machine. The cards are stripped and changed to the required gear, and then set to run. After one or two cans of sliver are produced, exchange the picker lap on one make or type with the other and again run for one or two cans. The slivers of these cans are sized for weight and averaged according to set.

The number of sizings per each can and the number of machines to be sampled can be calculated as according to the laws of probability. The averages of the sizing from the first one or two cans of the two makes or types are compared with each other, and then with the averages of the second test.

If one of them shows lighter or heavier in both sizings, we can then correct for the differences in weight by changing the draft gear of either set. After correction, repeat the above method until the differences in weight amount to less than one tooth of draft gear, or until the two sets do not show one to be constantly heavier or lighter. We can then assume they are of the same general weight.

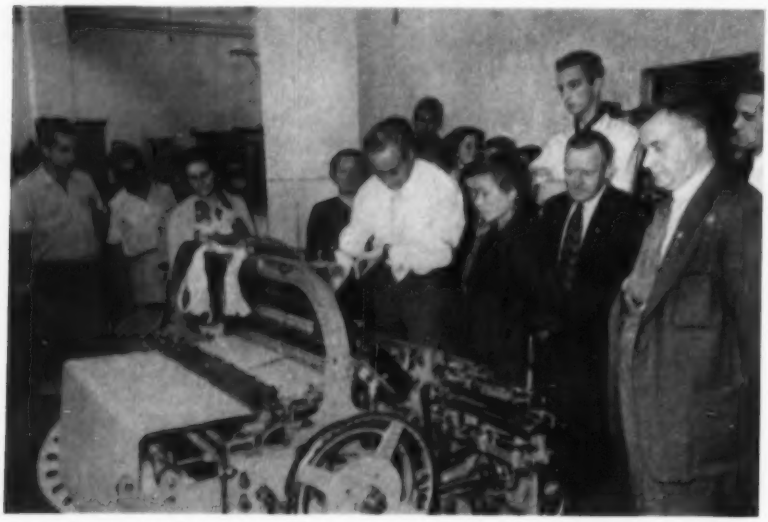
To further check it, we can pass the card slivers of two sets through two heads of drawing of the same type with exactly the same settings and roller weights. After running two to three days, if the draft gear used to arrive at the standard weight does not deviate from each other for more than one tooth, then it proves the card slivers are of the same general grain weight.

Textiles behind the iron

Most of Russia's textile machinery is copied from Western designs; design of mill buildings and auxiliary equipment is good, but Russian textile workers find that most of the products they make are too expensive for them to buy for their own use

by P. Abbenheim
Exclusive

Members of the Amalgamated Weavers Association team examine some of the locally grown 1 5/16-inch cotton used at the Stalin Tashkent Textile Combine plant in Uzbekistan, U.S.S.R. The bald-headed Russian, second from right, is the general manager of the Combine.



Lewis Wright, general secretary of the Amalgamated Weavers Association, times a loom in the weave shed of the Stalin Tashkent Textile Combine. The Combine has 5,400 Soviet-made automatic looms, which members of the team considered good replicas of British Northrop.

CONCRETE facts and figures about industry behind the Iron Curtain have been hard to find. All too frequently production is given in terms of percentage increases, taking some previous year as a basis. The figure for the preliminary year, however, is seldom given.

Facts and figures about the Soviet cotton industry have been given recently in a report issued by a British delegation from the Amalgamated Weavers Association, which has recently returned from a fact finding tour of the U.S.S.R.

In the Russian cotton textile industry there are employed about 1,400,000 workers, of whom about 94% are organized within the Textile and Light Industry Workers' Union. This has a total membership of about 2,500,000 and contributions to the union are 1% of earnings.

But what of the Russian textile industry itself? The team visited one of the oldest mills in the Soviet Union and they also traveled 2,000 miles to Uzbekistan, on the border of Afghanistan, to see the very latest cotton textile combine situated in the heart of the Russian cotton fields. They traveled by the Russian air service which, they found, was not comparable with any West European air line, either in service or the types of planes in use.

The immediate impression of Moscow's population did not encourage the delegates to enthuse about what they saw. In the words of one of three women in the team, "The men and women on the streets were shabbily dressed. The women seemed to dress in bits and pieces: odd costume coats over dresses with very little design. They all seemed to wear head scarves, and footwear was not too good."

Another impression of Moscow

curtain

was that of the large squares and broad thoroughfares which impressed them greatly, and women street sweepers who did not!

A last word about Muscovite fashion: The probability is that the Russians are not being encouraged or stimulated to demand better clothing or to become "clothes conscious" until the economy can meet such demand. Doubtless, fashion has a place in the list of Russian priorities which has not yet been reached.

The Amalgamated Weavers' Association is a trade union that is largely confined to the Lancashire (cotton) region of Britain. It was, therefore, interesting to note some comparative figures that the team obtained for the relative price of commodities in their own Lancashire and in the U.S.S.R. They soon discovered in working on their figures that comparable prices were not real in terms of purchasing power and that the only real method of showing the relative values was by comparing the time required to earn sufficient money to purchase comparable items.

The accompanying list shows the relative earning power of the Russian and British textile workers in terms of goods they use [figures for American textile workers have been added by the editors].

Why are things so expensive in the Workers' Paradise? Part of the answer is not far to seek. Amortization of new equipment takes only two years! The Russian textile industry is responsible for raising its own capital and, as mentioned above, it is customary to write-off new equipment in only two years. In other words, the cloth-consuming public has to pay more for its cloth in order to pay quickly for new skills and machinery. On this basis the U.S.S.R. cotton industry is bound to expand very rapidly, and always with modern machinery.

The difference between the Russian and Lancashire [and U. S.]

(Continued on page 139)

How Well Off Is the American Textile Worker?

Ivan is a weaver in Russia, Percy has a similar job in a cotton mill in Lancashire, England, and Joe runs a stand of looms in a mill in the southeastern U.S.A. Here is the number of hours each must work to buy clothing for the family.

Product	Russia		England		U.S.A.	
	Hr	Min	Hr	Min	Hr	Min
Rayon blouse	36	40	4	22	1	53
Silk blouse	55	—	14	34	3	59
Cotton-rayon skirt	16	9	5	34	2	31
Wool skirt	81	30	17	28	5	19
Wool skirt (best)	139	—	24	23	7	59
Spun rayon dress	60	48	17	28	3	50
Cotton print dress	19	48	6	7	2	31
Woman's light raincoat	129	48	24	23	3	11
Lisle stockings	4	48	1	43	—	51
15-denier nylons	6	30	2	42	—	37
Nylon panty-bra set	65	12	13	46	2	10
Two-piece cotton dress	21	—	10	6	3	50
Rayon shirt	21	48	6	55	2	31
Sport shirt	6	55	4	20	1	53
Rayon tie	2	42	1	36	—	40
Man's socks	2	6	1	18	—	37
Man's suit	358	—	69	55	25	18
Boy's suit	21	24	8	43	4	18
Boy's winter coat	38	45	17	28	6	39

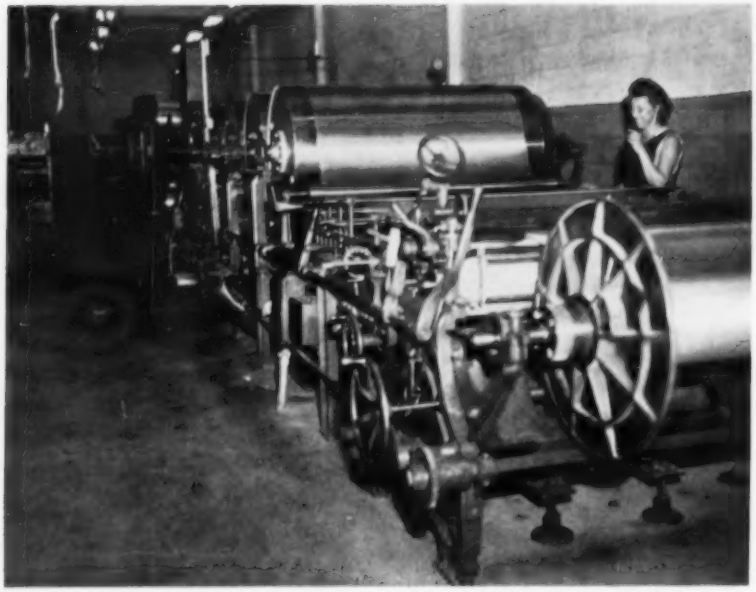
REPRINTS *of this list in a large size, suitable for use on bulletin boards, are available so long as the limited supply lasts. Write to The Editors, "Textile Industries," 806 Peachtree St., N.E., Atlanta 8, Ga.*

Members of the Amalgamated Weavers Association team examine cotton coming from a card in a Russian mill. In general, the team found that Russian textile machinery is copied from Western equipment. Design of mill buildings and auxiliary equipment is good, since skilled people from other industries assist the mills in planning along the latest lines.

Schwarzenbach Huber's new facility for

Sizing dope-dyed yarns

Staff prepared
Exclusive



Slashers are clear of hoods and a maze of piping. Pipes are below the floor level; the hoods were replaced by ceiling exhaust fans. Note the dry floor.

AS ANOTHER STEP in the completion of its modernization program that has been in progress for the past seven years, Schwarzenbach Huber Co. has added a 16,000 square foot, one-floor unit to its Juniata, Pa., plant. The program, designed to turn out loom finished, dope dyed taffetas at high speed, has cost $1 million to date and is built around a 322-loom complement.

The new addition houses a high speed, air conditioned warping unit, a slasher room, and a yarn and beam warehouse, all separated by partitions. The slasher room, now turning out about 1.2 million yards every four weeks, is provided with space and facilities for addition of a third machine if and when it is required.

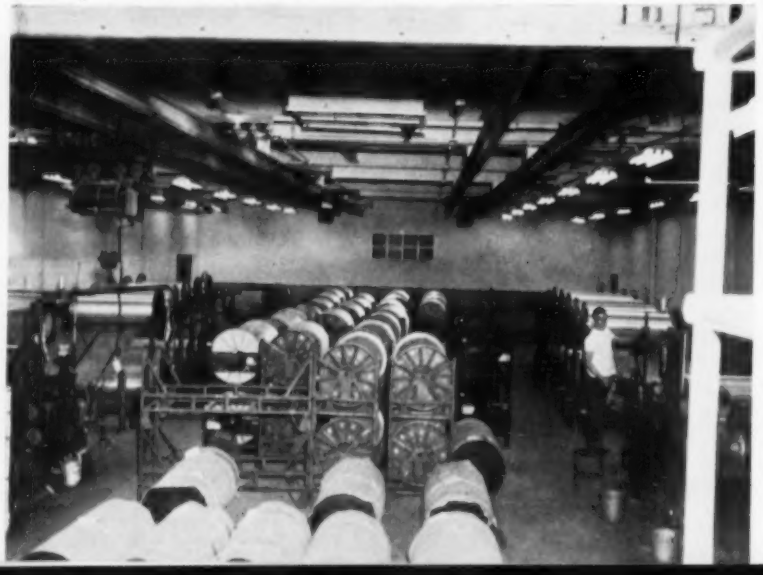
The outstanding characteristic of the slasher room is its freedom from crowding and from unwieldy traffic conditions. Most of the section beams processed in the department are warped by filament yarn producers on section beams. The department's two slashers are lined up, one along each wall, and section beams are fork-trucked to the center aisle for storage on racks. This space is about 20 feet wide, is located between the two slashers, and runs the length of the room. Overhead hoists, mounted on bridges which travel between two rails, one system for each slasher, moves the beams from storage to the section beam creel of the slasher. Rail systems, running the length of the machines, also are used to doff the sized warps from the head end of the slasher and to travel a short distance to the exit door of the department. Beams are then hand trucked about 50 feet to another two-rail system which moves them to either the twisting department or weave room.

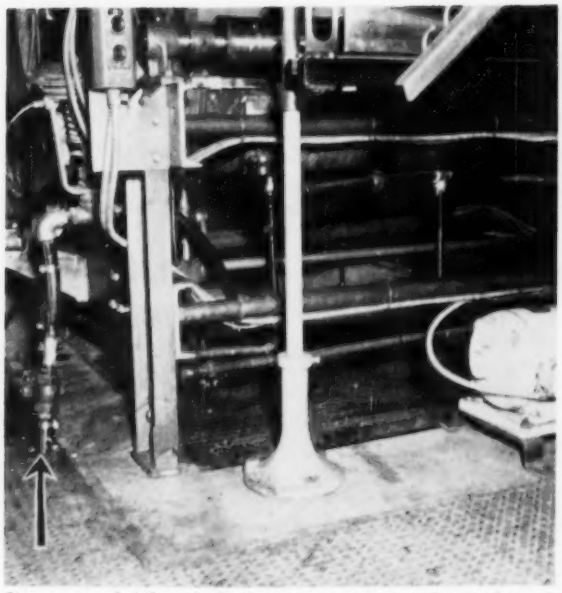
SIZE FORMULATION is performed at the delivery end of the slasher room at floor level. The space provided for this contains two 250-gallon stainless steel tanks with electric mixers. Once mixed, the size is pumped directly above the mixing units to another pair of 250-gallon storage tanks.

The elevation of the storage tanks is sufficient to provide the pressure required to feed slasher size pans through a piping system which is housed in underground channels. The size pans are equipped with another pipe line, also beneath floor level, through which size in the pan can be pumped back up to the balcony storage tanks.

All pipe lines carrying the size formulas are plastic. This was specified to eliminate a staining condition that can occur on the

Section beam racks are placed in the center aisle close to beam creels. The two center rails will carry a third hoist when and if a third slasher is added.





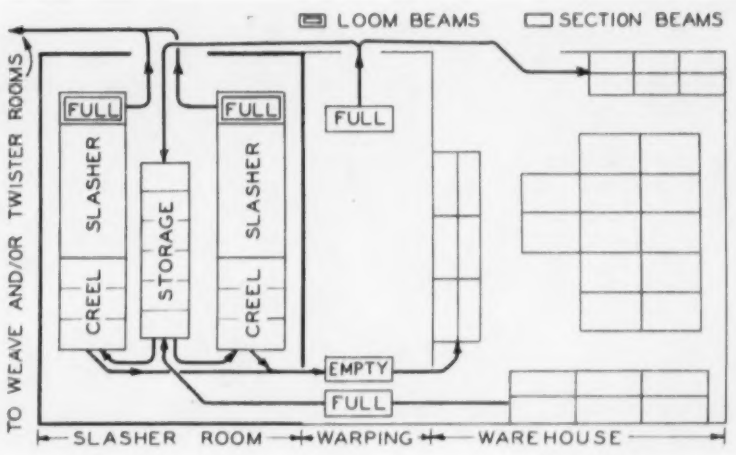
Size pans are fed through plastic piping, one section of which (arrow) is shown emerging from its underground channel. Motor at right can

pump size from the pans to storage tanks. Ventilators (right) instead of hoods keep the room air exhausted.

warp when the liquid passes through copper or brass piping.

THE SLASHERS themselves consist of one Johnson 7-drum, and one Johnson 9-drum unit. Both have 30-inch cans. Exhaust hoods have been eliminated from over the can sections of the machines and replaced by ventilators driven by 1-hp motors. This frees considerable space for movement of beams on the rail system.

Beneath the slashers, pits have been provided to catch water and size dumped from size pans and during can washing. These pits have kept the floors clear of water.



Size formulas are prepared in the two stainless steel 250-gallon tanks at floor level and pumped up to the pair of balcony tanks.

Gravity feeds the size to the pans. At right is a big loom beam being lifted from the slasher by a monorail hoist.

Use the learner's skills as fast as he acquires them, as an aid to

TRAINING SPINNING FIXERS

by Maley Chagro

Exclusive

*Part 2**

THROUGHOUT the apprentice-fixer training program, and whenever a changeover occurs, the apprentice should actually perform tasks such as setting the traverse, picks, etc. Without knowledge of the builder, which can truthfully be called the "heart" of the frame, the apprentice will never become a fixer. Recent articles in this magazine thoroughly covered the builder and winds.

Where changeovers are few and far between, a sample, training, or idle frame should be utilized to complete the over-all training of the apprentice fixer.

The second phase of the apprentice-fixer's timetable covers the third and fourth weeks in the six-week training program and also includes all operations and tasks performed in the first two weeks.

Gear changes—draft, twist, and lay—are made in the daily routine of the fixer. The jack gear in the head end and the crown gear in the draft gear housing are changed only when the constants are to be changed. All the other gears are standard ones and they will last indefinitely with proper care—i.e., lubrication of all bearings in the head end and drafting housing.

The first instruction should include the proper meshing of gears to avoid grinding and wear and tear on the teeth. There is no definite rule as to how deeply the gears should be meshed, except the "rule of experience."

This experience indicates that a ¾ mesh insures longer life to the gears and avoids grinding. Memorizing such key points is important. Less than a ¾ mesh involves the danger of slippage or backlash.

Draft gear changes of running yarns have been reduced to a minimum in mills with quality control departments—changes are invariably made in the card room and not in the spinning room. However, if it becomes necessary to change draft gears, it is recommended to do so on the doff.

There are good reasons for this. What is known as "cut yarn"—bruised looking in appearance—will emerge from the drafting rolls after the draft gear change. Such yarn, plus all piece-ups, should go into a bunch at the startup, and thus eventually into waste and not in the cloth.

IN TRAVELER CHANGING the importance of the circle, number and flange should be stressed to the apprentice. Also stress the safety key point when he picks the traveler up with a hook from the palm of his hand.

The apprentice may not know what S or Z twist indicates, but the methods employed in putting the traveler on the yarn and ring should be thoroughly explained. There is one way for S and another for Z, and if applied wrong the ends will drop out of the traveler and break down. Piecing up a bad set from this cause impairs the quality from the numerous piecings.

If the travelers are plugged up with lint at the traveler change it may indicate that the pin cleaners are not set properly. High gravity travelers will "shake" lint off more easily than elliptical or semi-elliptical travelers in the low gravity class.

For the low gravity travelers, the pin cleaner has to be set closer than for the high gravity travelers. It is important that the pin cleaner be thoroughly cleaned before gauging.

Do not leave traveler boxes on top of creels, but after carefully checking and filling the traveler cups on the frames return them to the fixer's supply closet.

THE LIFE of a ring has been estimated to be from 15 to 20 years without reversing the ring; and if reversible, from 2 to 5 years longer. Much depends upon the proper travelers. Perhaps the best buffing agency between the web

First and second phases of the training schedule are shown here.

APPRENTICE-FIXER'S TIME TABLE

	1st Week	2nd Week	3rd Week	4th Week	REMARKS
OBSERVATION	✓	✓	✓	✓	OK
OILING	✓	✓	✓	✓	OK
SEWING TAPES	✓	✓	✓	✓	OK
CUTTING ROLL LAPS	✓	✓	✓	✓	OK
GEAR CHANGES			✓	✓	CHANGED DRAFT, TWIST, LAY GEARS OK
TRAVELER CHANGING			✓	✓	OK
CHANGING BAD RING			✓	✓	OK
FIX "BACK ENDS"			✓	✓	OK
MISC.	MADE COMPLETE CHANGEOVER FROM WARP TO FILLING. UNDERSTANDS IMPORTANCE OF RECORDING HYGROMETRIC CHART BENEATH "WET & DRY" THERMOMETERS.				

*Part 1 was published in the February, 1957, issue, beginning on page 125.

First instruction in gear changing should include proper meshing of gears to avoid grinding and wear on the teeth.

and the flange, is the traveler itself.

This is indicated as the traveler is gradually increased in weight as the ring is broken in. It is important that the ring be broken in right—and another "rule of experience" has proved that too wide a circle will badly groove the web of the ring. Too narrow a circle will cause a "wavy" pattern beneath the flange. Traveler companies constantly put out literature concerning this and copies are easily obtained.

In this plant, individual bad rings are never changed with new ones; new ones are used only when the whole frame is changed. But when a full ring changeover is made, many of the best of the old rings are strung up and stored for future individual replacement. It is a cost saving feature.

Replacing a bad ring is not just done haphazardly. All replacements are put at the end of the frame, usually at the front of the builder end, and recorded.

Rings will crack easily if a wrench or any other tool accidentally strikes the flange. There is one method that should be discouraged—If an end repeatedly breaks down, do not press the finger on to the arbor end of a top roll and remove an oil skim and apply under the flange or on the web of the ring. Temporary relief doesn't remove the cause. If the ring is bad, replace it.

When a number of back ends (roving ends broken back) appear on the frames, there is something definitely wrong with the efficiency of the section. Back ends will occur but should be kept at a minimum by constant inspections and removal of causes. These indicate that the yarn has repeatedly broken down.

Spinners should be instructed to report this condition after the yarn breaks down two or three

times. In this connection, when ends down tests are made, all broken ends should be marked by placing a chalk mark on the top creel opposite the spindle. When three such chalk marks appear together, the fixer should be called. That portion of ends down tests relating to mechanical faults should be brought to the attention of the fixer.

THERE ARE FEW visible signs that will indicate the probable causes of back ends. There is one, however, which should be pointed out to the apprentice, and that is the "shaking" bobbin—a bobbin that is not running concentrically.

When this occurs, it may just be a bad bobbin. Test with a full bobbin. If it is not the bobbin, check for "dry" spindle. Place hand lightly (to avoid hand burn) on the the base and if it seems overheated, immediately apply oil and check with full bobbin again.

If bobbin again fails to run true, the spindle and bolster will have to be removed. In most instances it will be found that the major causes for back ends will be offset spindles, lack of oil and bad bobbins.

Spindles and bolsters have long life, and with proper care will consistently perform well. However, if it is necessary to remove the spindle or bolster, especially bolster, check for a broken key on the keyed bolsters and a broken pin on the pin type. In stripping the spindle assembly down, the fixer-trainer should thoroughly explain each step. Bad spindles should never be cast off if they can be re-trued, or if a new whorl and clutch are needed.

Once the cause is ascertained and corrected, the spindle should be spot-set if needed. A simple method is to do this with a full bobbin and gauge the space between the bobbin and ring with the eye. If off, loosen the base nut slightly and tap nut with wrench until center is achieved. Place guidesetter on the spindle and adjust by lightly resting guidesetter pin against the inside of the guide toward beam end.

In some states there is a law requiring that the hygrometric charts be filled in daily beneath the "wet" and "dry" bulbs. Where automatic humidity recordings are not available, the readings from these bulbs can be computed on a scale to indicate the relative humidity.

In this mill the fixer records the readings at stated periods during the shift and at the end of the shift, tears off the sheet and returns it to the second hand. The apprentice should learn never to by-pass this task. The apprentice should be encouraged to keep records of technical data relating to the work. It will be a reference "refresher" whenever needed. Such data as the following, taken from actual records, can be recorded on small cards or in a pocketsize notebook:

Yarn: 38s filling
Stock: 1 1/16" combed
Hank roving: 3.50
Draft constant: 1005
Draft gear: 46
Crown gear: 170
Back roll gear: 119*
Twist gear: 62
Jack gear: 132
Twist constant: 1005
Motor pulley: 14"
Cylinder pulley: 15"
Spindle speed: 9200
Roll speed: 136
Lay gear: 43
Traverse: 1⅝" to 1⅞" (bottom rounder)
Pick: 5-5-5-5
Wind: Filling
Traveler: 5/0, #1 flange, ⅝ circle
Ring: 1⅜"
Doff: 3 hours, 15 minutes

*The back roll gear is occasionally changed with crown gear to give a new constant.

All front rolls in this plant are "nicked" at the foot end. This enables the supervisor with a sweep-hand wrist watch to determine roll speeds quickly. This eliminates the necessity of a stop watch and speed indicator except at those times when all speeds are taken. Many fixers do this to determine if a belt is too slack.

All apprentices should be thoroughly groomed to identify instantly the roving color marks. No roving should be placed in the creels whatsoever if there is no mark to identify the hank. Roving hands should also report this at once to the fixer if it is the fixer's responsibility to send the roving back to the card room. Hank roving color marks should be on the top taper always, and roving shift marks, if used, on the bottom.

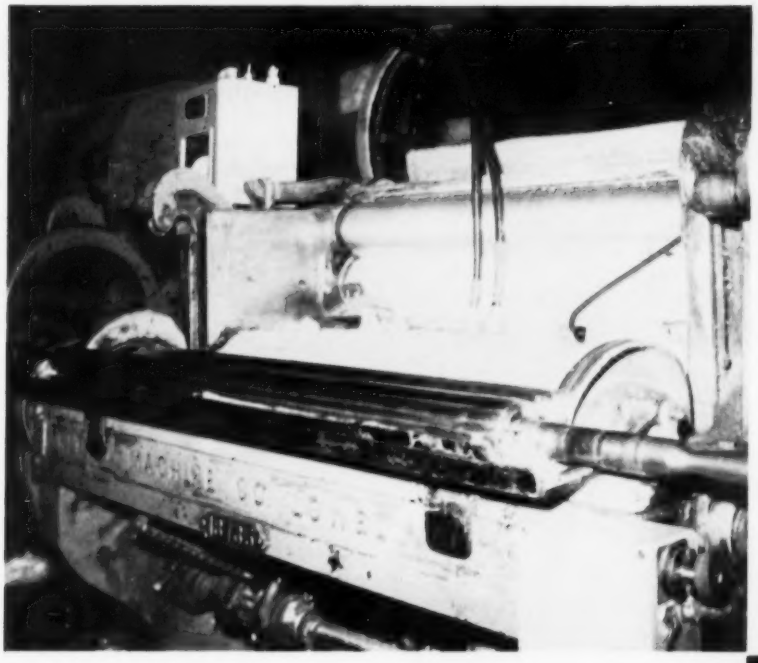
(To be continued in an early issue)

Executive views

(from page 91)

in making cotton into fabric and in getting out, but he had better experience in getting out than in making better fabric on equipment that had not been kept up because the older brother had spent it all.

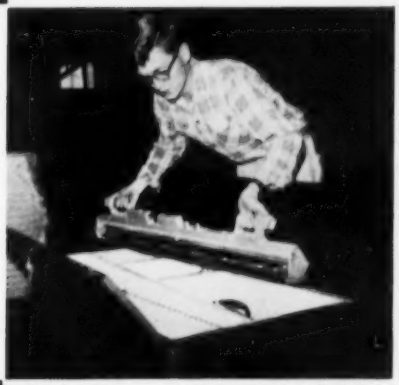
The younger brother had hard times too for awhile but he had relied on the man who was experienced in making cotton into fabric and in keeping a factory in good condition and before long the folks who buy cotton made into fabric found out about his mill and they came to him instead of him going to them and though he heard a lot of folks talking about depressions he figured they must be somewhere else because the man his father had hired and who was experienced in making cotton into fabric had let him stay in business while his older brother who also had had an experienced man in making cotton into fabric but had let him go was just in the office asking him for a job at less than plenty but the younger brother had told him that if he hired a man at less than plenty when a man worth much more than plenty was available they'd all go broke and besides he was still paying his experienced man much more than plenty and then some and still he had to figure to the fourth decimal point in his cost per pound to even find the salary of the experienced man who really knew how to make cotton into fabric and make it better than his competitors.



How to get the biggest dividends from laboratory facilities in a cotton mill

Uster Varimeter on picker ready to make lap test. This instrument is wired to Uster evenness tester in the laboratory, which is over 500 feet from the picker.

Use your lab!



Varimeter is stored in a special duck-lined box when it is not in use. Box is on casters for easy movement as required.

by Ramon Parks

Exclusive

Nep count is made using the template designed by Bogdan and associates at the School of Textiles, N. C. State College.

Technician uses the Strobotac to check twister travelers and bobbins in tracing defects originating in the twister room.

OUR LABORATORY, like many other textile mill laboratories, is equipped to make the usual physical tests now required in the modern day mill. Our equipment includes:

For fiber testing:
- Micronaire
- Pressley tester
- Fibrograph

For picker laps:
- Uster Varimeter

For sliver, roving, and yarn:
- Uster evenness tester with recorder and quadratic integrator

For yarn
- Motor-driven yarn reel
- Scott Model J skein tester
- Twist tester
- Incline plane tester (IP-4)

For fabric
- Scott Model Q tester
- Gauge
- Crimp tester
- Hydrostatic tester

Miscellaneous
- Scales, ovens, Strobotac, etc.

Of more importance is the fact that we have a staff of technicians well trained in the

use of these machines and instruments. Also, our procedures have given good results and are worthy of note.

Inasmuch as our production consists largely of industrial fabrics, a major part of our work is concerned with testing these fabrics to be sure that they meet our customers' specifications. Many of these requirements are very rigid.

We also make routine control tests on our stock in process. Included are picker lap tests; sliver, roving, and yarn weight; and evenness tests. Many of these tests are evaluated statistically, and the over-all picture is observed carefully on a weekly and monthly basis.

Most of the tests are made in such a way that the performance of each individual machine is noted. Machines making below-standard work are reported, and the necessary steps are taken to make corrections.

Aside from checking individual machines, our laboratory technicians can render other services which are of value to the overseers in the mill. In recent years the supervisors have started to take full advantage of all the laboratory facilities.

FABRIC TESTS. It is necessary to test our fabrics very carefully to meet strict customer requirements. We have found, through some sad experiences, that if adequate precautions are not taken to assure correct processing procedures, specifications will not be met. For this reason, many of our fabrics are given a preliminary test when each new warp is put on the loom.

The usual procedure is to weave enough cloth to permit about one yard to be cut off and brought to the laboratory. The sample is tested immediately, without waiting for it to be conditioned, and it is given preference over other work which may be in progress.

The critical points in the specifications are then checked. These may be weight, crimp, gauge, width, or elongation. The preliminary test report is sent to the overseer of weaving, who has necessary adjustments made on the loom to make the goods meet the specifications.

In the event the sample is considerably out of tolerance, another sample is woven, and the tests are repeated. A record is made of the loom settings which show the best results, and when another warp of the same fabric is put on the loom the same settings are used.

Usually the fabric can be duplicated from loom to loom with the same settings, but occasionally a loom will require slightly different adjustments. The overseer is well pleased with the results of these preliminary tests.

STROBOTAC HELPS. Most of our fabrics are made with plied yarns, and although the processes in the preparatory departments are not complicated (in fact there are fewer processes than in most mills making "fine" goods), it is difficult to make the yarn of the quality necessary for good weaving. For example, a kink or a slub in one of the plies may cause a skinback on the loom. This in turn may cause a drawback in the cloth, a broken warp end, or even a breakout of several ends. This is especially true in making tightly woven fabrics.

It is sometimes difficult to determine where defects originate, particularly after the goods are on the inspection tables in the cloth room. Someone suggested using the Strobotac in the twister room. The results are even better than we had expected. First the Strobotac light is aimed at the traveler, and if nothing appears amiss, the yarn on the bobbin is then checked. When a defect is spotted the bobbin is removed from the spindle. The defective bobbins are examined, and in most instances the origin of the defect is determined. This type of "testing" seems to hold considerable promise.

MACHINE PERFORMANCE. Our routine testing is done in such a way that the individual machine, and in some instances the individual spindle, can be identified. For example, a certain number of bobbins of roving are taken from one slubber each day and brought to the laboratory for evenness test. The spindle numbers are also noted.

If the variation in one of the bobbins is too far out of line, another bobbin from this spindle is tested. If the variation is still too high, the sliver being fed is tested. Should the sliver evenness be high, the drawing frames supplying this slubber are checked. On the other hand, if the sliver is good, the roving frame is assumed to be at fault, and the necessary steps are taken to correct the trouble.

If the neps in the web from a certain card are excessive, as revealed by the regular nep count which is made the day following the grinding of the card, the overseer or secondhand checks the web. If examination does not reveal the cause of the high nep count, the regular card grinder is instructed to regrind and reset the card.

Should the nep count still be out of line, the head grinder takes over and completely overhauls the card. This machine is not put back into production until its performance is satisfactory. Similar steps are taken if the Uster test on the sliver indicates excessive unevenness.

Although we have several pickers we have only one Varimeter. Each picker is fitted with the necessary brackets and wiring (to the Uster tester in laboratory) so that this instrument can be moved from one picker to another. The Varimeter is kept in a box when not in use. This box can be locked and is mounted on casters for ease in moving to each picker.

When the Varimeter is put in place on a picker and has been calibrated the technician goes to laboratory, switches the evenness tester over to the Varimeter circuit, and makes the necessary adjustments to the Uster tester for the lap that is being run. The test on this lap is not used, but on the next lap a chart is made, the integrator is read at the proper intervals, and the variation is calculated.

Should this variation be excessive, the card room overseer is notified. If minor adjustments can be made on the picker at once, this is done, and another lap tested. If considerable work has to be done, however, the instrument is moved to another picker and the first

picker is rechecked when ready.

OTHER TESTS frequently made for the overseers include evenness tests when roll settings are changed, yarn weighings when frames are changed or when yarn is mixed or tags lost, analysis of fabric samples, special speed tests, and twist tests.

We realize that the routine tests are essential for records and for maintaining quality standards, but we feel that this special testing, which might be termed "trouble-shooting," is a valuable function of the laboratory, which when properly utilized will pay dividends.

Clemson College scene of TEAM-Day, 1957

Staff report

■ More than 80 members of the American Textile Machinery Association and South Carolina textile executives toured Clemson College schools, campus, and farm and pasture land on February 12, in annual Textile Education and Machinery (TEAM) Day activities.

The program recognized machine builders for contributions to industrial progress.

It was the third time a textile college has honored the association. North Carolina State College inaugurated the event in 1955, and Lowell (Mass.) Technological Institute was host last year.

Tours were conducted in the schools of engineering and textiles, the USDA Spinning Laboratory, ACMI technical service division, and the new USDA Ginning Research Laboratory.

James H. Hunter, new ATMA president and president of James Hunter Machine Co., North Adams, Mass., stressed the increasing importance of technical education in the industry. "I know that enrollment in textile schools has dropped alarmingly in the past few years. You must compete as hard for students as we do for customers," he said.

"The opportunities in the future which exist for young men in our industry, must be sold, and competition is tough. The glamour girls of today are not spinning frames, looms, and cloth dryers, but electronics, jets, and guided missiles."

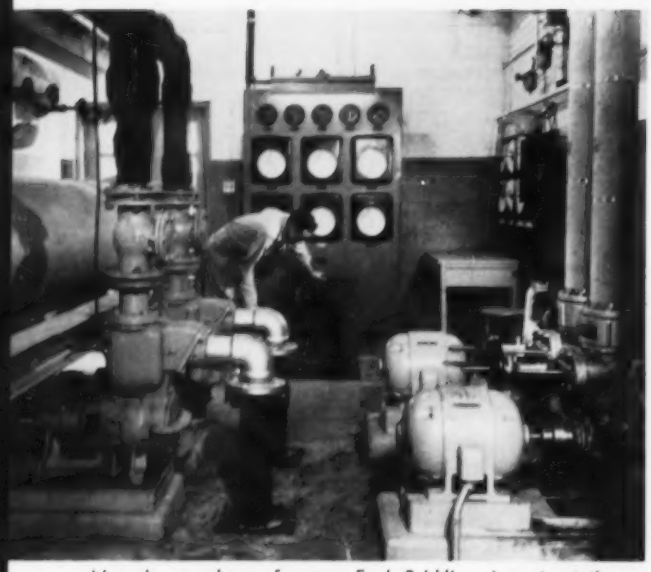
Mr. Hunter lauded the loyalty of "American friends and customers," and commended the contributions of physical facilities, equipment, machinery, laboratories, and dedicated personnel at Clemson.

Dr. Hugh Brown (center), dean of Clemson's School of Textiles, welcomes ATMA members.

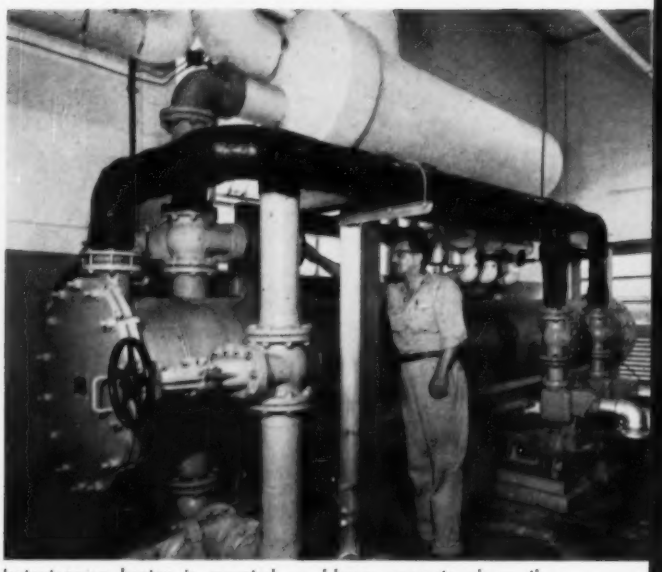
Keen interest in this product of Sirrine Foundation-sponsored research was displayed by the machinery builders.

Highlights of the day-long program included an illustrated luncheon talk by C. S. Reed, vice-president, Duke Power Co., Charlotte, on "Times Are Changing," and a banquet address by F. E. Grier, president of the American Cotton Manufacturers Institute.

Mr. Grier stated: "I view the coming year with more optimism than I have felt in a long time." Then he spelled out some of the reasons for this optimism: "The capacity of our plants has been sharply reduced through scrapped spindles; the population of the country is rising rapidly; we are already operating at close to capacity; and our government has at last taken action to help us with our problem of Japanese competition."



Magee's powerhouse foreman, Fred Beishline, inspects stationary screens in main sump. Pumps in right foreground supply hot water to mill; pumps in left foreground supply dye liquor to reclaimer.



Instantaneous heater is mounted on I-beam supports above the waste heat reclaimer. Dark plastic pipe carries spent dye liquor from sump to reclaimer. Line with gate valves is fresh water line.

Don't Waste Hot Water!

How Magee Carpet Co. recovers heat from dyehouse waste to increase production and save $23,400 *a year*

by James J. Coleman
Chief Engineer
Textile Division
Patterson-Kelley Co.

Exclusive

THE DYEHOUSES at The Magee Carpet Co., Bloomsburg, Pa., are now supplied with 180° hot water at 800 gpm since the water heating system at the plant was fully renovated. The equipment includes a 50,000-gallon stainless steel hot water storage tank, a closed-type waste water heat reclaimer, an instantaneous water heater, and a dye sump with pumps for each of the two dyehouses. A substantial relocation of existing water and steam lines was necessary to eliminate distribution problems.

With this new system, Magee Carpet has been able to increase production considerably by being able to supply hot water directly to the dyeing machines. No valuable production time is lost now in waiting while live steam is injected into the cold water in the machines to bring them to temperatures of 210°. Steam requirements have been greatly reduced, cooler water goes to city sewage disposal, purchase of a new boiler was averted, and the whole boiler operation is more even and efficient.

Two methods of dyeing are used at Magee: In one dyehouse, 26 open dye vats are used for skein dyeing; and in another, the stock is dyed in 8 stainless steel pressure machines. Both of these dyehouses have their own sump pit and pumps to receive the spent dye liquor.

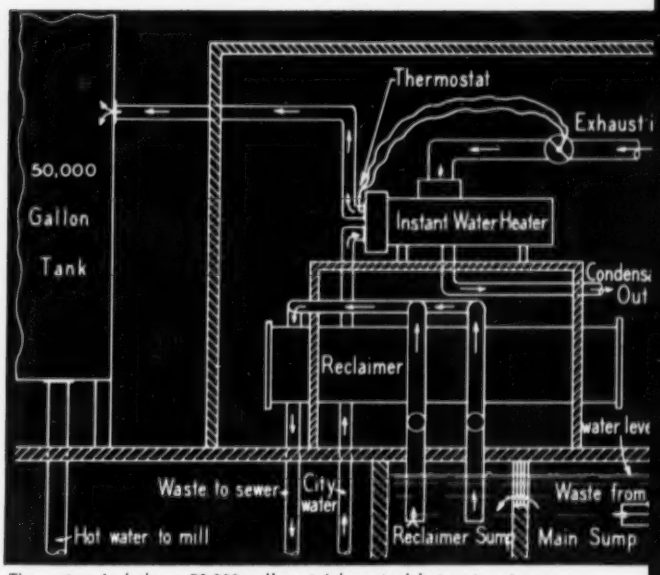
The Magee mill uses about 70,000 gallons of hot water a day. Demand is not constant, but the 50,000-gallon storage tank takes care of the whole plant, and in addition affords hot water for other purposes. Considerable expansion is possible, since the system is capable of supplying 800 gallons of hot water per minute.

Steam supplied by four boilers is used on the seven dryers, as make-up to boiling point of the water used in the dye machines, and also in the turbines supplying power to run the dust collectors, feed pumps, and forced-draft fans. Condensate is reused in both the waste heat converter and the feedwater heater.

The system is now operating at a fraction of its rated capacity; the design is flexible enough to provide plenty of hot water for present needs at great savings in fuel and production time, and is also capable of supplying enough hot water to meet needs generated by any foreseeable amount of future expansion.

WHEN OPERATING at de-

Raw stock is dyed in eight stainless steel pressure machines, three of which are shown in the photograph above. Operator is opening steam valve to thermostatically controlled mixing tank.



The system includes a 50,000-gallon stainless steel hot water storage tank, closed-type waste water heat reclaimer, instantaneous water heater, and sump with pumps for each of the two dyehouses.

signed capacity, the waste water heat reclaimer will heat 17,390 gph of fresh water from 40 to 140 F, using 17,390 gph of spent dye liquor at 200 F. From this, a heat recovery of 14,491,666 Btu's is realized. This heat recovery is equivalent to 16,450 lb of steam per hour at 100 lb pressure, or approximately 475 boiler horsepower. Theoretical fuel savings at this capacity (based on three 40-hour shifts per week and 52 weeks per year) would amount to 4,680 tons of coal per year or $23,400 per year with coal costing $5 a ton. Coal savings were estimated at a maximum of 14,940 Btu's per lb with a boiler efficiency of 65%.

The system was designed to provide an ample supply of hot water in storage using the most economical means of heating. This is done through a balancing of the availability of reclaimed heat against exhaust and live steam supply. Although operations are too irregular and intermittent to allow the reclaimer to function at peak rated capacity all the time, provision is made to insure that fresh hot water goes to storage at all times at a constant temperature of over 180°.

When the reclaimer is bypassed because of cold rinse water in the sumps, for example, the angle of the butterfly valve regulating the exhaust steam is increased, through the action of a thermostatic valve placed in the fresh water outlet of the converter. If this additional exhaust steam is insufficient, live steam from the 45-lb line is introduced through the desuperheater in controlled amounts into the exhaust steam line, making up the difference.

PREVIOUSLY, a small amount of water had been held in storage in a 5,000-gallon tank. When dyeing operations were commenced, this reserve was quickly exhausted, and it was necessary to inject live steam directly into the machines to bring the cold water to 210° or thereabouts. With city water temperatures averaging about 55°, that meant that the operators wasted a lot of time standing around waiting for proper temperatures to be reached.

This extra steam load intensified the boiler load already directed to seven steam dryers and the power turbines. Indicative of the savings possible is the fact that formerly a 2" steam line in the dye house rated at 300 hp was opened full, and now it is opened less than half.

At one end of the building containing the boiler plant, a brick extension was built to house the waste water heat reclaimer, the waste heat converter, the main sump pumps, and the hot water line pumps. The 50,000-gallon storage tank was erected next to this building and is completely insulated. The reclaimer and the converter are both heat exchangers of the shell and tube type.

With the new system, waste heat in spent dye liquor is reclaimed in a waste heat reclaimer, and waste heat in exhaust steam is converted in an instantaneous heater.

IN OPERATION, the spent dye liquor is discharged from the dye vats and flows into a retention or sump pit, with an overflow to sewer provided. Several stainless steel screens are placed to trap out the greater portion of the lint.

From the sump pits, a horizontal overhead pump directs the liquor to the main sump located beneath the floor of the building containing the reclaimer.

The spent dye liquor then flows through additional screens into an adjacent pit and is pumped into intake pipes of the reclaimer. A liquid-level and temperature-level control in the sump pit allows only hot waste dye water to be pumped to the reclaimer.

The spent dye solution proceeds

through the reclaimer tubes, passing back and forth through pass-sections arranged in both heads; its heat is transferred to counter-flowing city water in the shell. It is then piped off to sewage.

The temperature of the spent dye liquor will vary considerably, but it will raise the temperature of the incoming city water an average of 100°. The additional temperature elevation required for dyeing is accomplished in a heat exchanger mounted atop the reclaimer. In this waste heat converter, city water is raised in temperature to 180°-plus, through the introduction in controlled amounts of exhaust steam from the desuperheater into the shell while the city water passes through the tubes.

Leaving the tubes of the converter, the water is piped to the 50,000-gallon storage tank, where it is held for use in the dyehouses. This storage tank is so well insulated that the temperature will not drop appreciably over a weekend shutdown.

AN IMPORTANT FACTOR to be considered in the dumping of waste water to sewage is that water at over 100° when discharged directly to streams can kill aquatic life in the area. 100°-plus water discharged to a city disposal plant will interfere with the action of the chemical treatment, by preventing gasification and hindering bacterial action.

Therefore, a system for reclaiming the heat in waste water is doubly advantageous. First, direct savings are made in fuel and plant operation; and second, the waste water is prepared for sewage

■ Total man-made fiber production in the United States during 1956 was 1,644,700,000 pounds, a decline of 4 per cent from the all-time record of 1,715,800,000 pounds produced in 1955, according to the annual presentation of man-made fiber statistical data by the *Textile Organon*, bulletin of the Textile Economics Bureau, Inc.

The 9 per cent decrease in rayon and acetate yarn and staple production (from 1,260,700,000 pounds in 1955 to 1,147,900,000 pounds in 1956) was said to have been offset in part by increased output of textile glass fiber and the non-cellulosic fibers.

Non-cellulosic fiber production last year rose to 399,900,000 pounds, 5½ per cent over 1955. There was a small decline of 1,400,000 pounds or ½ of 1 per cent in filament yarn output, and a 22,000,000 pound or 21 per cent increase in non-cellulosic staple and tow.

The publication's compilation of filament yarn shipments by trade shows that deliveries to all trades declined from 1955 levels except for exports, where shipments rose 8½ per cent. The declines by trade were as follows: hosiery, 29½ per cent; circular knitting, 9½ per cent; warp knitting, 31 per cent;

Progress on measuring hand of wool fabrics

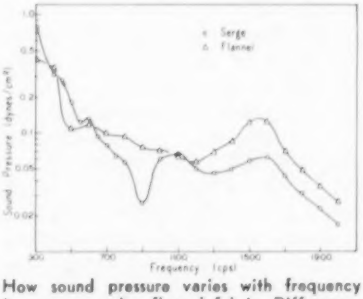
■ The hand or softness of a wool fabric is one of its most important properties, yet it is one of the hardest to measure.

Preliminary results with equipment recently developed for this purpose at the Western Utilization Research Branch of the U. S. Department of Agriculture are reported to be quite encouraging.

Since harsh fabrics produce a louder sound than soft fabrics when rubbed, the principle of recording and analyzing the sound of fabrics as they are rubbed or brushed against themselves was employed in designing this instrument, which is not at this time commercially available but is being refined with the hope that a practical apparatus may result.

Tests conducted thus far suggest very strongly that there is a useful relationship between this sound, which can be measured quantitatively, and the unmeasurable impressions one gets from handling a textile material.

Called the "Rustleometer," the machine provides a means of moving the fabric at a constant rate, and under constant pressure, against itself. A calibrated microphone picks up the sound and converts it to a voltage. This voltage is amplified and fed into a harmonic wave analyzer. The wave analyzer measures the individual components of sound emitted by the fabrics — that is, the intensity of sound (or sound pressure) over the audio frequency range of



How sound pressure varies with frequency in a serge and a flannel fabric. Differences in sound distribution probably stem from differences in fabric construction or geometry.

300 to 2000 cycles per second, essentially a "sound spectrum," for the material. The over-all sound intensities appear to correlate well with hand panel evaluations of fabric softness, according to Dr. Harold P. Lundgren, head of the Branch's Protein Section. Moreover, he continued, the sound produced at specific frequencies by a fabric in friction is characteristic of the fabric. Fabric geometry appears to influence results obtained.

treatment.

This factor was given serious consideration at Magee Carpet when the plans for the new water system were being laid. With plant expansion projected for the future, a serious sewage problem could be averted only by including some means of allowing only cooled water to go to the sewers.

Since both hot spent dye liquor and cold rinse water are discharged into a sump, an automatic system of separating cold runs from hot is provided. In each of the dye sumps, a stainless steel thermostatic float was installed, together with a set of high- and low-level electrodes. In operation, the system allows the pump to function only when sufficient water above a predetermined temperature level is flowing into the sump from the dye vats.

When a cold rinse is discharged, the thermostat shuts off the pump and the cold water runs down a drain provided in the bottom of the sump. From there it goes to the sewers at a safe temperature for treatment. The electrodes serve as a low-level shut-off.

Little maintenance is required on the installation. The reclaimer is cleaned out about every six months, at which time the doors at both ends are opened. Most of the accumulated matter settles right at the doors and drops out when these doors are opened. A long-handled wire brush is used for periodic cleaning of the tube surfaces.

Equipment for the installation was provided by The Patterson-Kelley Co., Inc., and the system was designed by Roushey and Smith, consulting engineers.

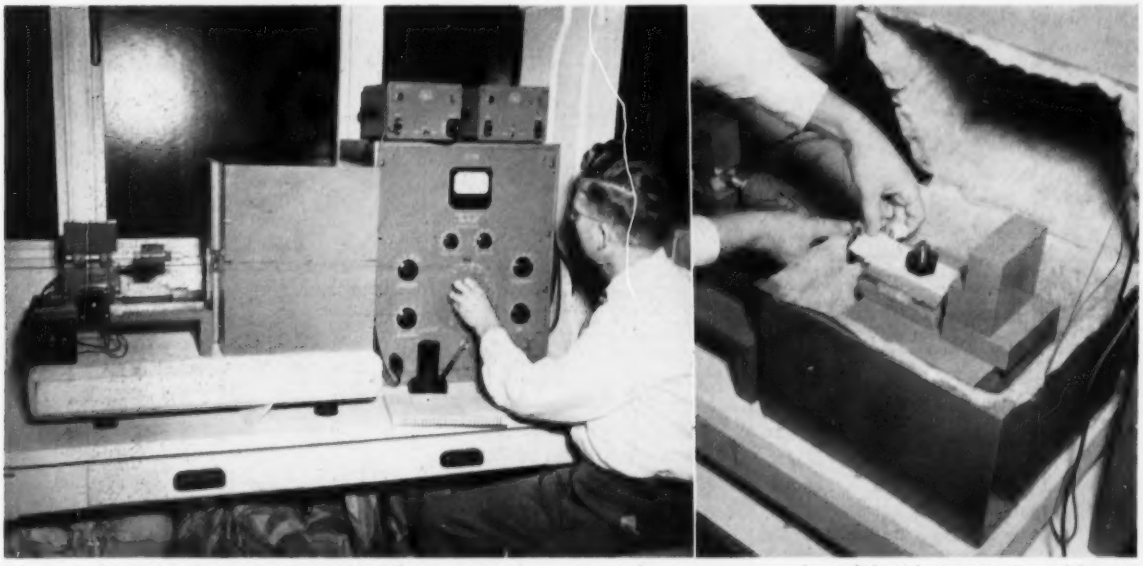
broad weaving, 12½ per cent; narrow weaving, 16 per cent; miscellaneous uses, 2½ per cent; and tires and related uses, 17 per cent.

An analysis of yarn shipments by territory indicates that the Piedmont area (comprising North and South Carolina, Virginia, and West Virginia) continues as the largest single territory to which rayon and acetate yarn is shipped. The Piedmont received 38½ per cent of these yarn deliveries last year, compared with 38 per cent in 1955.

Of a total of 382,000,000 pounds of rayon and acetate staple and tow shipped to domestic consumers in 1956, 242,000,000 pounds or 63½ per cent were delivered to cotton system spinners; this amount was 8 per cent less than in 1955. Shipments for carpets and rugs continued to increase in 1956

Man-made fiber output down in '56

and reached 84,000,000 pounds, a gain of 6,000,000 pounds or 7½ per cent over the previous year. Deliveries to woolen and worsted spinners totaled 10,000,000 pounds, about the same as in 1955.



Walter J. Thorsen has designed and assembled the equipment shown in the left photo for analyzing the noise made by rubbing fabrics. It consists of three main components: At the left is (1) a tow mechanism which draws a portion of the textile material, in compression against itself, at a constant rate; (2) a box, lined with glass wool to minimize interfering external sounds, houses a microphone assembly; the microphone, in contact with the fabric samples, picks up the sound produced, and the electrical impulses are fed to a harmonic wave analyzer (3) with associated amplifiers at the right. How the fabric is placed on the microphone assembly for test may be seen in the right photo: Fabric is cut into three strips which are placed one on top of the other, in sandwich fashion, and laid on the sound sensitive diaphragm of the microphone assembly. The top and bottom fabrics are held fixed, and the center piece attached by means of a harness to a tow mechanism. A weight compresses the fabrics while the center piece is moved.

WARP SIZING

More on the properties of a well-sized warp

By Paul V. Seydel, D.Sc.
Seydel-Woolley & Co.

Exclusive

Article 12*

Calculations. The method used for calculations is the same for all fibers and regardless of the method of desizing. In the unsized yarn, the loss in weight on the moisture test multiplied by 100 divided by the weight of the sample, represents the percentage of moisture in sample. Also, the loss in weight after the desize test multiplied by 100 divided by the weight of the sample, represents the percentage of moisture, oils, natural fats, waxes, mineral matter, dirt, etc. By subtracting the moisture percentage from the moisture and "etc." percentage, the "etc." percentage in the sample is obtained. By adding the moisture and "etc." together and subtracting from 100, the percentage of cellulose is obtained by difference.

In order to calculate the percentage of size and moisture in the sized yarn and cloth, proceed as follows:

Calculate moisture same as in the raw yarn. Calculate item "size, etc." same as the "etc." in the raw

*The first installment of this series, which deals with all phases of the warp sizing operation for cotton yarns and yarns produced from man-made fibers, appeared in the May, 1956, issue of this magazine. Subsequent articles have dealt with properties of cotton fiber and yarns, properties of man-made fibers and yarns, materials for sizing, analysis and testing of materials for sizing, and the sizing process.

Sample Calculations

Per cent moisture in raw yarn:

Weight of sample	11.375
Dry weight	10.792
Moisture loss	.583

$$\% \text{ Moisture} = \frac{.583 \times 100}{11.375} = 5.13\%$$

Per cent "Etc." in raw yarn:

Weight of sample	11.375
Weight after desizing	10.353
Total loss	1.022

$$\% \text{ "Etc."} = \left(\frac{1.022 \times 100}{11.375}\right) - 5.13$$
$$= 8.98 - 5.13 = 3.85\%$$

Per cent cellulose in raw yarn:

$$\% \text{ cellulose} = 100 - (5.13 + 3.85) = 91.02\%$$

Per cent moisture in sized yarn:

Weight of sample	10.890
Dry weight	10.272
Moisture loss	.618

$$\% \text{ Moisture} = \frac{.618 \times 100}{10.890} = 5.67\%$$

Per cent size, etc., in sized yarn:

Weight of sample	10.890
Weight after desizing	8.605
Total loss	2.285

$$\% \text{ Size, etc.} = \left(\frac{2.285 \times 100}{10.890}\right) - 5.67$$
$$= 20.98 - 5.67 = 15.31\%$$

Per cent cellulose in sized yarn:

$$\% \text{ cellulose} = 100 - (5.67 + 15.31) = 79.02\%$$

Corrected "Etc." from raw yarn:

$$= \left(\frac{\% \text{ cellulose in sized yarn}}{\% \text{ cellulose in raw yarn}}\right)\left(\text{"Etc." in raw yarn}\right)$$
$$= \left(\frac{79.02}{91.02}\right) \times 3.85 = 3.34\%$$

Per cent size in sample:

$$= 15.31 - 3.34 = 11.97\%$$

NOTE: Some mills are interested in "dry basis" reporting of results. For "dry basis," divide in each case by the weight of the sample after it has been dried for moisture determination, rather than before drying. To obtain "% cellulose," subtract only the desizing loss from 100, not the moisture.

Moisture and size added to 100 pounds of raw yarn:
(Calculated only for the sized yarn)

Per cent size added:

$$= \left(\frac{\% \text{ cellulose in raw yarn}}{\% \text{ cellulose in sized yarn}}\right)\left(\frac{\% \text{ size in sized yarn}}{\text{sample}}\right)$$
$$= \left(\frac{91.02}{79.02}\right) \times 11.97 = 1.152 \times 11.97 = 13.79\%$$

(This is equivalent to pounds size added per 100 pounds of raw yarn)

Per cent moisture added (use same correction factor):

$$= \left(\frac{\% \text{ cellulose in raw yarn}}{\% \text{ cellulose in sized yarn}}\right)\left(\% \text{ moisture in sized yarn}\right)$$
$$- \% \text{ moisture in raw yarn}$$
$$= (1.152 \times 5.67) - 5.13 = 6.53 - 5.13 = 1.40\%$$

Total added weight per 100 pounds raw yarn:

$$= \text{Size added plus moisture added}$$
$$= 13.79 + 1.40$$
$$= 15.19\%$$

yarn. Calculate the cellulose same as the cellulose for the raw yarn. To divide the item, "size, etc." up into its parts—viz., percentage of size and percentage of oils, natural fats, waxes, and salts — we must first bring the amount of cellulose up to the same as the amount of cellulose in the sample of raw yarn, in order to get them on the same basis.

In other words, divide the percentage of cellulose in the sized yarn by the percentage of cellulose in the raw yarn and multiply by percentage "etc." in raw yarn. This gives a figure which represents the percentage of "etc." in the sized yarn or cloth. By subtracting this from the percentage of "size, etc." we arrive at the percentage of size in the sample.

At first glance this may seem a bit complicated, but a little consideration will make it clear. When we analyze a sized yarn, the natural matter included under "etc." is chemically the same as many of the materials used in sizing—in many cases they may indeed be identical, such as, for example, the natural chlorides and cotton glycerides, pectin gums, and the hydrocarbons, or the coning oils used in rayon processing. Since they are identical and cannot be chemically separated, we must determine how much was originally in the yarn, and subtract the difference.

Now, what we want to know is not how much of the "etc." was in the raw yarn, but how much is in the sized yarn. So we analyze the raw yarn to determine how much "etc." goes with how much cellulose. If we have 91 pounds of cellulose in every hundred pounds of raw yarn, and this carried 4 pounds of "etc.," then our sized yarn, containing only 79% of cellulose, would carry correspondingly less "etc." in the ratio of 79 to 91. This is shown in the sample calculations.

As we are interested not only in the analysis of the sample, but also in many cases in the amounts of size and moisture added per hundred pounds of raw yarn entering the slasher, we may also make the following calculations.

Since we have determined by analyzing the raw yarn that each 100 pounds of raw yarn contains

ANALYSIS REPORT —SEYDEL-WOOLLEY & COMPANY

Mill		The Old Stream Mill, Greenville, S. C.	
Samples Taken		June 17, 1956	
Yarn		cotton	cotton
Yarn No.		16	30
No. Ends		964	3804
Style		E-23	3700
Construction		48x40	108x56
Lab. No.		1-23	1-24
Remarks			
Cyl.		8 lb.	8 lb.
Temp. Size Box		200°	200°
Yards per Min.		28	36
% Stretch		1.25	1.75
Slasher No.		1	2
Formula			
Starch	Ferrel corn	150 lb.	150 lb.
Compound	SEYCO 11	18 lb.	18 lb.
Gal. Water		120	120
Gal. Finish		150	150
Time Cooking		1.5 hrs	1.5 hrs
Oz. Starch per finish Gal.		16	16
Analysis by per cent of Weight			
Cellulose		77.2	71.8
Moisture		6.6	10.8
Size, Etc.		16.2	17.4
Size in Sample		11.8	13.2

Sample analysis report for sized yarns.

so many pounds of cellulose, so many pounds of moisture, and so many pounds of natural waxes, etc., we must bring our analysis of our sized yarn to the same basis, in regard to the cotton cellulose, as the raw yarn.

In other words, we must find a common denominator such that when it is multiplied by the percentages found in the analysis of the sized yarn sample, the result will be a figure of cellulose equal to the percentage of cellulose in the raw yarn sample.

We multiply "size in sample" and moisture by this same denominator, thereby keeping the ratio of each ingredient. Now, all we have to do is subtract the amount of moisture in the raw yarn from the amount in this new ratio, and this will give us the number of pounds of moisture added to every 100 pounds of raw yarn. The result obtained by multiplying "size in sample" by this denominator will be size added per 100 pounds.

If results are desired on the "Dry Basis," one uses the weight of the sample *after* drying for moisture rather than before drying, as the divisor in the calculations. Of course, in this case, the "size, etc." only, and not the moisture, is subtracted from 100% to obtain the cellulose.

A copy of a fictitious laboratory analysis is illustrated to show the information that it is recommended be kept with the analytical results. A discussion of this might be useful.

The first few items are self-explanatory. The yarn, yarn number, number of ends, style, and construction serve to identify the sample being investigated. Of course, the style number alone could do this, but it is much simpler to get the whole thing in mind if the other information is there. It is not always easy to remember what each style number refers to, and in checking old files and reports for comparison with newer results, the other information immediately gives a picture of the yarns and the cloth for which they are needed.

The laboratory number is a number put on by the analyzing laboratory for its own identification. All samples are numbered consecutively as they are received within some period, say a year or

a half year. If any question comes up, the sample can be immediately found by referring to the lab number, and the sample may be rechecked, if it is desired to do so.

The cylinder pressure shows at what temperature the cylinders are being run. In this case, the 8 lb will be equivalent to a steam temperature of 235 F. The cylinder surface temperature in this case will probably run around 205 - 215 F. This information should be kept in order to relate the steam temperature to the drying capacity of the slasher.

The size box temperature should be shown, to show that it has been checked and that the temperature controls are operating correctly.

Yards per minute shows the production rate of the slasher for the style in question. This should be checked against the steam temperature (or pressure) from time to time to be certain that operations are going properly. Faulty condensate removal, for instance, will decrease slasher production rates. Within reasonable limits, the slasher should produce a certain number of pounds of dry yarn per hour, whether the sets are heavy or light, and whether the yarns are of different counts or not. Radiation, cylinder surface contact, and other variables will prevent attaining exact ratios.

The stretch should be recorded to show that the slasher is operating properly, and not overstretching the yarns. More stretch may be expected with light sets, and also, with certain styles, more stretch is desirable than with others—particularly those constructions in which a twill line or a face is desired on the cloth.

The designation of the slasher on which the sample was sized should be made, as it is often found that slashing characteristics vary between different slashers in the same mill. Where this is so, an effort should be made to locate the cause of the variation. In any one report, variations might be due to use of a new slasher blanket, a note of which should be placed under the heading "Remarks."

Formula information is valuable when trying to duplicate results made at some previous date, or when it is desired to change the size pick-up. In the latter case, one may estimate from the formula given how much change will be needed to produce the desired result.

In this mill, the formula given may not be the ideal for both types of constructions, but is a compromise arrived at for the sake of simplicity of operations. The figure showing ounces of starch per finished gallon allows a quick estimate of what the size pick-up should be under normal average conditions. It also allows a quick comparison of the concentration of different size batches.

In the analytical operation, the yarns are first dried, then desized and dried again. In the first drying, the loss in weight is the percentage moisture contained in the yarn. The additional loss is "Size, Etc.," and the remaining material is pure cotton "Cellulose."

"Size, Etc." contains not only the percentage size in the sample, but also contains all the natural ingredients of cotton which are removable during the desizing operation: the waxes, oils, mineral matter, organic acids, pectins, etc. For the sake of space conservation, this is all lumped together as "Etc."

The amount of "Etc." that the yarns contain is determined from the raw unsized yarn, as described previously (this analysis is not shown on this report, but should be made with each yarn analysis if accuracy is desired). On subtracting this corrected figure, we obtain the figure "Size in Sample"—the amount of size the yarns contain. These figures may be reported on the "As Received" basis, which is the usual way, or they may be calculated on the "Dry Basis," in which case this is usually noted on the report.

The estimation of fats, including waxes, oils, glycerides, and hydrocarbons in yarn or cloth, is a highly technical procedure requiring an expert of unusual skill to determine even approximately the nature of a mixture of several fats and waxes.

In general, it is best, unless a mill is large enough to employ a trained, experienced chemist and maintain a well equipped laboratory, to have such analyses made by a chemist experienced in that particular line of chemistry. We strongly suggest where this is done, that checks on the same sample be made by asking one or more of the firms supplying the mill with starch or compound to analyze same, reporting only those groups that can be determined with reasonable accuracy.

More harm than good usually comes from an analysis that is not accurate in its findings. Many curious phenomena occur in chemistry. New discoveries are being made daily to still further complicate the matter. Only through practical tests of scientific theory can one be sure. Three samples of pure platinum, all analyzing chemically the same, may have three widely different actions as catalysts in the manufacture of sulfuric acid, simply because their physical states were different.

This is true of any number of substances. Also, many substances acting alone have one set of properties, while in the presence of other substances they have an entirely different set and react quite differently.

Beam Storage. Loom beams may be stored on one of the types of racks described in the chapter on slashing equipment. Beams of sized yarn should not be stored under conditions of high humidity, particularly if the storage period is for more than two or three days.

The size film is much more susceptible to mildew than the raw yarns, and although most sizes have some antiseptic, it is usually present only in amounts sufficient to take care of normal variations, due to excessive costs of using enough to take care of all conditions.

Obviously, the storage space should be clean, and particular care should be taken that overhead bearings or pipes will not leak oil or water on the warp.

Weaving. We come now to the process which is the objective of the sizing operation. Assuming that we have kept weavability in mind all the way through and have sized the yarn so as to get the maximum amount of weavability available from that source, we have still a

few variables that may affect the results. It is taken for granted that loom settings are properly made for the yarns and for the type of construction being woven. Just how this is done is subject to a great deal of controversy, and we prefer to leave this to the loom fixers and overseers of weaving.

Humidity in Weaving. Humidity does concern us, however. The strength and the elongation of cotton increases with increasing humidity. This does not mean, though, that the humidity in the cotton mill weave room should be set as high as possible. In the first place, the maximum efficiency is not obtained from loom operatives at very high humidities. Secondly, the strength and elasticity of starch films begin to decrease when the humidity exceeds 80 to 85%. (This does not mean that the tensile strength of the yarns will decrease, for the cotton fibers continue to gain strength at higher humidities.) Experience has verified laboratory findings relative to size film softening. . . . a warp that is too damp will have greater tendency to chafe or ball up at the drop wires.

In the case of rayon, this fiber is strongest when it is driest. Yet a compromise must be made. The size films become much too brittle when thoroughly dry, and the yarns are less flexible. Very dry rayon yarns will develop a lot of static which will cause major difficulties in weaving. As has been brought out repeatedly, the tensile strength of the yarns is not the most important consideration in obtaining efficient weaving.

Humidity requirements will vary. A fast-weaving warp will need more humidity, since the yarns are not exposed to conditioning for as long periods as with slower weaving goods. Sized yarns that have been dried too much will require higher humidity to pick up the same amount of moisture, due partly to the hysteresis effect discussed previously.

The presence of deliquescents in the size will increase the moisture regain at any stated relative humidity. The presence of wetting or rewetting agents in the size will probably increase the speed of moisture pick-up, though no test results have yet been obtained for this.

Shedding is virtually impossible to eliminate, but an effective size will keep shedding to a minimum.

The amount of moisture absorbed by the fibers from the air depends not on the amount in the air (absolute humidity), but on the percentage of the amount required to saturate the air. It is for this reason that we are interested in relative rather than absolute humidity. Most cotton mills operate above 80% relative humidity in the weave room, usually around 85%. The conditions in some mills may require as high as 90%; however, at very high relative humidities, loss of effectiveness of the size film begins.

Somewhat lower humidities are used in weaving rayon, and those used with synthetics are quite a bit lower than for cotton. No particular humidities may be recommended for general practice, since demands vary so much from mill to mill, depending not only on the type of fiber and loom conditions, but also on the particular type of size. Especially with some of the new synthetic polymer sizes used with the synthetic fibers, low relative humidities are needed to obviate excessive softening of the size film.

Shedding and Chafing. Chafing should be practically absent if the yarn has been properly sized, has been sufficiently dried, and has not been exposed to excessive moisture. Chafing is generally a result of insufficient fiber lay, aggravated by a soft or weak size film. It is more often noted with loosely twisted spun yarns, where the laying of the fibers is a greater problem than with the average yarn.

Shedding, on the other hand, is virtually impossible to eliminate completely. There will always be some breakage of small protruding fiber ends. Where attempts are made to reduce this to a minimum, some of the weavability may be lost through sizing so heavily that the yarns become too stiff and lose desired pliability and elasticity.

This does not mean that shedding in large quantities is a good sign. It may be a very bad sign. The material lost should be examined to determine whether it is fiber or size. If it is only short fibers, there need be no fear; but if it contains also quantities of size particles, then the slashing process and materials need to be checked.

The size may not be boiled sufficiently to form a good adhesive paste or it may be dried too much, baking it, and causing the film to be brittle. There may be too much or the wrong kind of softener, giving a discontinuous size film, or a weak film easily broken, which will greatly increase the friction of the sized yarn. An increase in the amount of deliquescent will often reduce shedding, but care should be taken that too much is not added.

It is interesting to compare the properties of a starch size film with those of bread, both being principally from starch with cer-

Shedding is often caused by allowing the size box temperature to drop too low. Although this slasher is equipped with controls and an indicating thermometer, the overseer takes no chances and regularly checks size box temperature with a hand thermometer.

As a further check on size box temperature and the in-line indicating thermometer, the overseer compares with the hand thermometer.

tain additives. It is well known that a good fresh loaf of bread is flexible and has a certain amount of toughness. (The old fashioned home-made breads were much tougher than the modern product, made for us modern folk who are too lazy to chew.) After toasting, or over-drying, the bread becomes crisp and brittle; the size film will do the same.

Now, we can overcome this crispness and brittleness by addition of moisture. But we observe that the damp toast no longer has the flexibility, toughness, and strength that the original bread once had. It is soft, but nothing more. A baked size film is in the same condition, and sheds readily.

Another cause of shedding with starch-based sizes may be an excessively heavy size mix that is too viscous to penetrate sufficiently to anchor the size to the yarn. To remedy this a thinner mix should be used.

Shedding is often caused by allowing the size box temperature to drop too low, so that the starch becomes partially gelled, losing its adhesive qualities. The size box temperature must be kept above 195 F, preferably above 200 F. The size in the storage kettle should also be kept above 190 F, but should not be boiled.

Still another cause is improper dressing of the yarns. This is most often found while breaking in new blankets. Whenever possible, the blankets should be broken in on the first roll before being used on the finishing roll. Sometimes too light a roll is used on very heavy sets. A more complete description of methods of handling blankets will be discussed in a later article.

Calculation of Production in the Weave Room. The story is told of the traveler who was reciting the wonders of China. "Just think," he said, "they have been playing mahjong for a thousand years, and have only one set of rules." "That's nothing," said his friend. "Here in America we have been playing it for one year, and we have a thousand sets of rules."

Calculation of production is in the same stage. Of course it does not matter how it is calculated, as long as the figures are always compared on the same basis. But in comparing figures between mills, the bases must be considered. There are some items that are occasionally overlooked, which are important in such comparisons for the sake of accuracy.

For instance, let's see how a man might calculate a higher percentage of production than he is actually getting. First, suppose that he is running one shift, starting the looms up about four minutes before scheduled time, and stopping three minutes after. That is 1.5%. If he calculates 160 picks per minute, and his looms are actually running 162.2, that is another 1.4%. Then, if he were calculating on poundage basis, and happened to have 0.7% more moisture in his cloth than he

guessed, his total percentage would run about 3½% high.

(One source of trouble in judging results by production has been noticed by the writer: In some large chains of mills which have an annual inspection, preceded by a clean-up campaign, percentage production always falls off slightly, due to time taken up for straightening out the mill.)

It is due to the fact that so many variables affect production besides the sizing, that the warp stop tests are a better basis for judging slashing results. A well-trained person can analyze the results and decide which are size defects and which are not.

One simple way for running checks on warp stops, if it is not deemed necessary to analyze carefully the reasons for the warp stops, is to use tinted tie threads for repairing breaks. These are easily seen and counted in the cloth room, and it is a simple matter to count the number of warp breaks in any set number of yards. This eliminates the need for a checker in the weave room.

It can easily be seen that loom stop checks, although possibly a bit more time-consuming, would give more accurate results on comparative qualities of warps than would production percentage figures, which are affected by variable human efficiency as well as by the variable yarns.

In using loom stop checks as a method of comparing the results of two or more sets of tests, the comments of Toner, mentioned previously in this article, should be taken into consideration. Any type of textile testing is statistical in nature, and the application of statistical theory assures first that sufficient testing will be done before conclusions are drawn, secondly that a lot of unnecessary testing is not done, simply to be sure of doing enough.

Maintenance of regular systematic loom stop tests with records kept of same will pay for itself several times over in putting the superintendent in a position to find the causes for his loom stops. Irregularities and weakness of the yarn due to poor cotton, spinning, slashing, or any of the previous processes will be found; also looms mechanically out of fix may come to light. Permanent records can be referred to from time to time to check uniformity, improvement, or decline in quality.

The tests should be under the supervision of a competent person capable of properly analyzing and interpreting the results. Causes of loom stops are best noted on a printed tag or card attached to the loom being tested. After the completion of the test, usually four to eight hours running, the number of stops for each cause is calculated on a basis of stops per loom per hour or per thousand picks, and can then be compared with previous results and recorded for future reference.

The card should give the date, loom number, total picks, and any remarks such as whether the test was routine or what was being tested. Style, construction, and number of harnesses should be recorded, as well as type of reed,

Quick way to run a warp stop test. Use tinted tie threads. They represent warp stops, and can be counted in the cloth room.

CAUSES OF LOOM STOPS

Warp breaks
- Gouts
- Knots
- Weak yarn
- Selvage break
- Stuck or twisted end
- Loose end
- Extra end
- Wild yarns
- Mat up
- Hard size
- Unknown

Filling breaks
- Kinks
- Slough-off
- Weak yarn
- Unknown

Loom faults
- Defective harness
- Let-off
- Take-up
- Shuttle
- Drop wire
- Bang-off
- Stop on change
- Unknown

size formula, and other pertinent data, so that comparative results may be checked.

Loom stops may be classified under three categories: warp breaks, filling breaks, and mechanical faults. If the card for recording stops is arranged as shown in the box [on page 131], each time the loom stops a check mark may be made by the trouble indicated, and when the warp has run out, the checks may be added and the whole card filed.

With a reasonable amount of care in interpretation of results, a file of these reports can be of great value to a mill. A drop in the quality of the cotton will increase both warp and filling breaks.

A new size formula may be checked by whether or not it decreases the number of warp breaks—being certain, of course, that all other conditions are properly controlled. An excessive number of knots or of broken selvages will indicate where other troubles may be stopped before they become serious.

Excessive size may cause troubles, as well as insufficient size. Tests made by the British Cotton Industry Research Association showed that breakage in the heddles and in the reed were at a minimum with a certain amount of size, and that breaks increased when either less or more size was used.

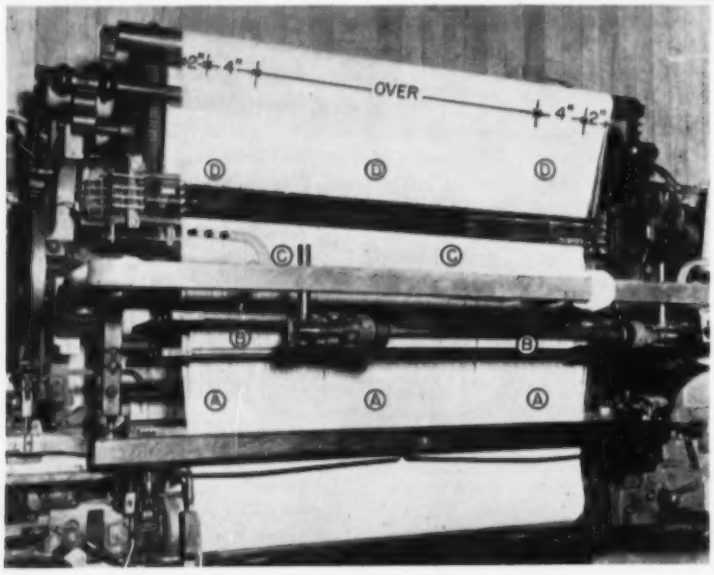
This optimum amount would vary, of course, depending on the cotton, the rayon denier, the yarns, the materials being used in the formula, the construction, humidity conditions, etc., but for any particular mill using the same sizing ingredients and the same type of yarn, this optimum could easily be found by a series of loom stop tests. It was stated that the breaks occurring between the loom beam and the heddles seemed to be independent of the amount of size.

Some of the defects of a warp are evident before the cloth is made. Sometimes they become evident only when some processing or some use exposes an inferiority.

A finisher once sent a sample of buffer cloth to a grey goods mill complaining that it was so gritty that it caused considerable damage. Having been called as consulting chemists, we examined the sizing compound, the starch, the cloth, and the water. Under magnification of 100 diameters, the warp of this cloth plainly showed

At least one mill urges this form for making warp stop checks. Note that it is designed to indicate the position of the warp break in the loom. Lettering on form corresponds to position of lettering on photograph of loom below.

Ⓐ	PATH OF REED Weak Warp Knot Spinner's Gout Lint on Yarn Lint Buttons Cut by Shuttle Wild Yarn Unclassified Totals Percent of Grand Total	2"	4"	Over	4"	2"	Totals
Ⓑ	IN HARNESS Weak Warp Knot Spinner's Gout Lint on Yarn Lint Buttons Cut by Shuttle Wild Yarn Unclassified Totals Percent of Grand Total	2"	4"	Over	4"	2"	Totals
Ⓒ	HARNESS TO DROPWIRES Weak Warp Knot Spinner's Gout Lint on Yarn Lint Buttons Met Up Wild Yarn Unclassified Totals Percent of Grand Total	2"	4"	Over	4"	2"	Totals
Ⓓ	BACK OF DROPWIRES Weak Warp Knot Spinner's Gout Lint on Yarn Lint Buttons Loose Ends Draw Back Crossed Ends Unclassified Totals Percent of Grand Total	2"	4"	Over	4"	2"	Totals
	GRAND TOTAL Breaks per inch per M loom hrs. Total Loom Hours						



small particles like fine sand with sharp edges. A number of samples of cloth and warps were examined and only the sample of cloth complained of showed this defect and it was unmistakably on the warp.

The only conclusion that could be derived from the careful examination of materials, conditions, and circumstances was that intermittently the water supply used for sizing had fine particles of sand in suspension. The water reservoir had gradually become filled with fine sand up to the opening of a pipe that furnished the water used for making up size.

The possible remedies suggested were removing the accumulated sand in the reservoir, better settling provisions for the water, an adequate filtering installation, or the use of condensed steam for making up the size.

The water supply for successful sizing should be good, clear, soft, free from gritty sediment, suspended matter, or anything likely to affect the warp unfavorably.

(To be continued next issue)

Warns of attack on "right-to-work" laws

■ "Right-to-work" laws are being introduced in several states and the unions are trying to effect repeals of such laws in a number of states which already have them, said J. C. Gibson, a Chicago attorney experienced in labor law, in an article entitled "The Coming Attack on 'Right-to-Work' Laws" in a recent issue of *Human Events*. 1835 K St., N.W., Washington, D. C.

"In addition," Mr. Gibson continued, "the unions have made it plain that they intend to make an all-out attack on the Taft-Hartley Act so as to have it override the state laws.

"In these coming legislative battles the rights of the individual workingman will be faced with formidable opposition. The AFL and CIO were strong politically before their merger, and they are even stronger now. With some 15 million members, and an annual income from dues alone of no less than half-a-billion dollars, they are in a position to wield a powerful force.

"But there is a way to meet that force and meet it effectively. In a word, it can be met through education—through education of our legislators and education of the voting public, with respect to the true meaning of the right to work.

"Any form of compulsory union membership is bad. But it is worse to give a big, modern, country-wide union a monopoly of employment in a great national industry. It gives the union an economic stranglehold dangerous to the public welfare. The danger would be multiplied if compulsory union membership should be enforced in all of the great industries of the United States; and it would be compounded if all of these great monopolistic unions should be banded together, with a few leaders, or a single leader, at their head. There would then exist a concentration of strength which could perhaps have an irresistible power over the economic and political affairs of this country."

Survey indicates wool fiber a favorite of American women

■ For their spring, fall, and winter suits and separate skirts, American women prefer wool to any other fiber, according to results of a sample survey released by the U. S. Department of Agriculture.

About 2,500 women, a cross section of adult homemakers and working women throughout the country, were interviewed in their homes. Interviewers sought to learn, among other things, what fibers women used in cool-weather suits and skirts and in sweaters, what fibers they liked best, and what they liked and disliked about various fibers.

Here are some additional findings revealed in the report:

For suits and skirts, no other fiber approached wool's popularity, regardless of whether women were telling what they had in their wardrobes, what they had bought in the year preceding the interviewing, or what they liked best. Rayon or acetate were well represented in women's wardrobes and purchases, but other synthetics had so far made little impact, even when blended with wool.

In sweaters, on the other hand, Orlon was making great inroads — more women said they had bought Orlon sweaters than wool sweaters in the preceding year, and nylon sweaters were also popular.

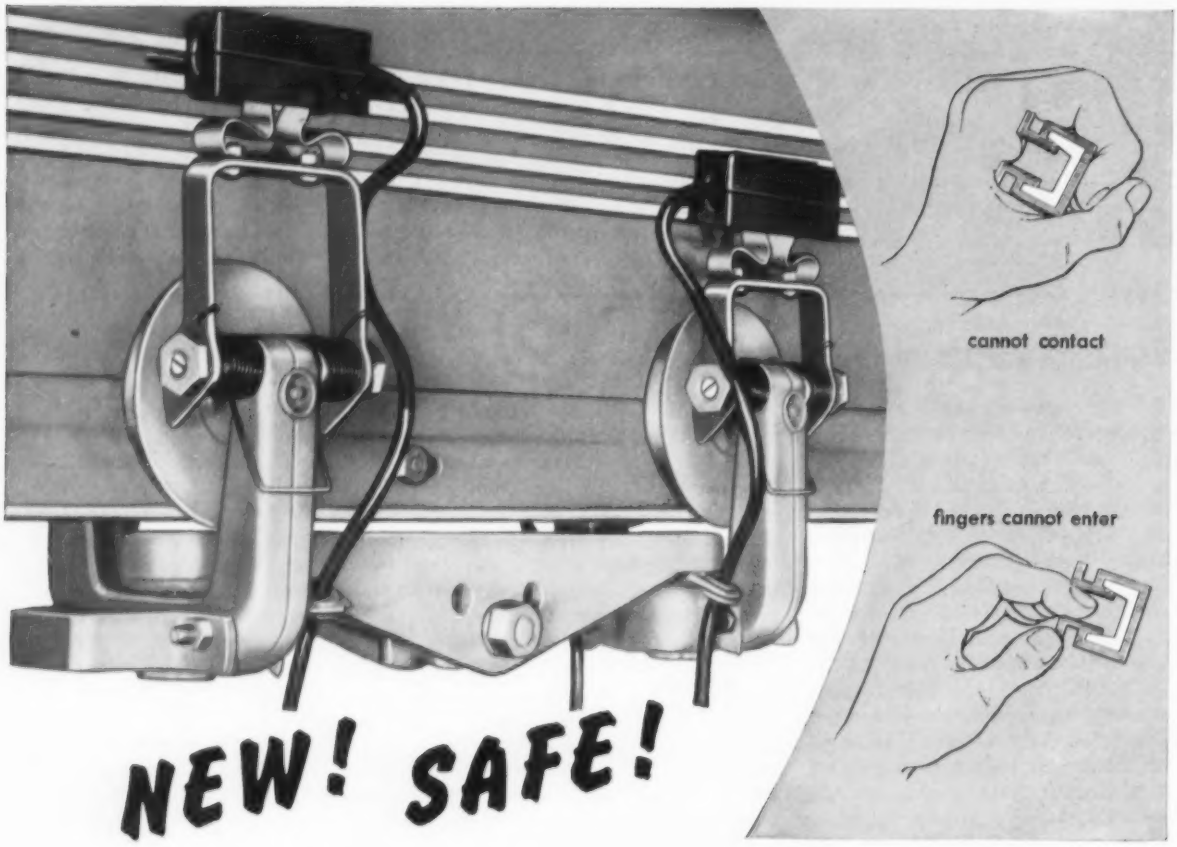
Practically all women had something good to say about wool, particularly that they liked its wearability, its warmth, and its smart appearance. The few who criticized wool said that they thought it irritated their skin or was difficult to clean and care for. Orlon, wool's major competitor for sweaters, was liked especially for a characteristic in wool that was criticized — care and cleaning — and also for holding its shape.

The principal reason women gave for selecting the last suit, skirt, or sweater they had bought was that they liked the fabric. Other reasons included color, style, and fit; but fabric led them all.

The study pointed out some directions research might take to improve the standing of natural fibers, for it indicated that many women would like to be able to wash skirts and sweaters, and that they would like wool garments premothproofed.

Other findings from the survey include women's attitudes toward imported fabrics and also toward labeling of wool garments; also home sewers' and knitters' uses and appraisals of fibers.

A free copy of this report, "Women's Attitudes Toward Wool and Other Fibers," Marketing Research Report No. 153, may be obtained from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.



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Tax and tax – spend and spend

by Ringgold Arden
Exclusive

ONE OF THE most popular presidents the country ever had has been re-installed to drive the American Car of State for four more years, and sitting right there upon the driver's seat with him is probably the most popular Inflation the country ever had.

No affairs of state or of business can be considered without consulting this Inflation. Presidents, governments, and political parties have been its prisoners for more than 20 years.

Born of frantic attempts during the New Deal period to find some way out of the economic quagmire caused by a previous inflation, our present one has completely enveloped the country, and is now hastening on to a period of maturity leading into its own quagmire.

Many supposedly reputable economists, and large numbers of politicians, seem convinced that the only way to avoid the descent into this economic bog is to recognize inflation as a permanent way of life, and adapt ourselves to it.

One of the most potent factors in this inflation has been the "tax and tax; spend and spend" philosophy of the New Deal. It has poisoned our whole economic system and made it impossible to reduce taxation or government spending. And, inflation is generated not only by direct government spending, but by the indirect support by the government of unjustifiable spending.

THE BIGGEST single inflationary force in the United States today is labor unionism. As practiced in the United States, this is nothing but legalized banditry. The automobile workers, the steel workers, the truck drivers, the longshoremen, the communications workers, and any number of other unionized groups exercise absolute monopolies within their industries, and can periodically stick an economic gun in the ribs of their employers and demand their money or their business lives.

In an economy where the government fosters continuing inflation, and has a policy of making money available to meet it, there is no stone wall that these labor unions can run into when making their demands, and they can consequently keep pushing prices up steadily and forever.

THE NORMAL bars in a free economy to this sort of perpetual wage and price inflation are the exhaustion of money and credit. As prices rise, large groups of people are unable to pay the higher prices, and get out of the market.

Competition for the spender's dollar tends to regulate prices, and rising prices will reduce purchasing power enough to force prices back into line. Our government has undertaken to evade this natural economic law by making money and credit available where prudent investors would have refused to make either available.

The building trades rackets have long since made the cost of building fantastically high, and it has not been possible to apply any brakes to the rapacity of these labor unions because government credit has guaranteed loans to builders at prices which would have frightened any prudent investors.

Government agencies have lent money for industrial investment where individuals would never have dreamed of putting their own money into such ventures, but the government can put their money in for them, and without their consent, or approval.

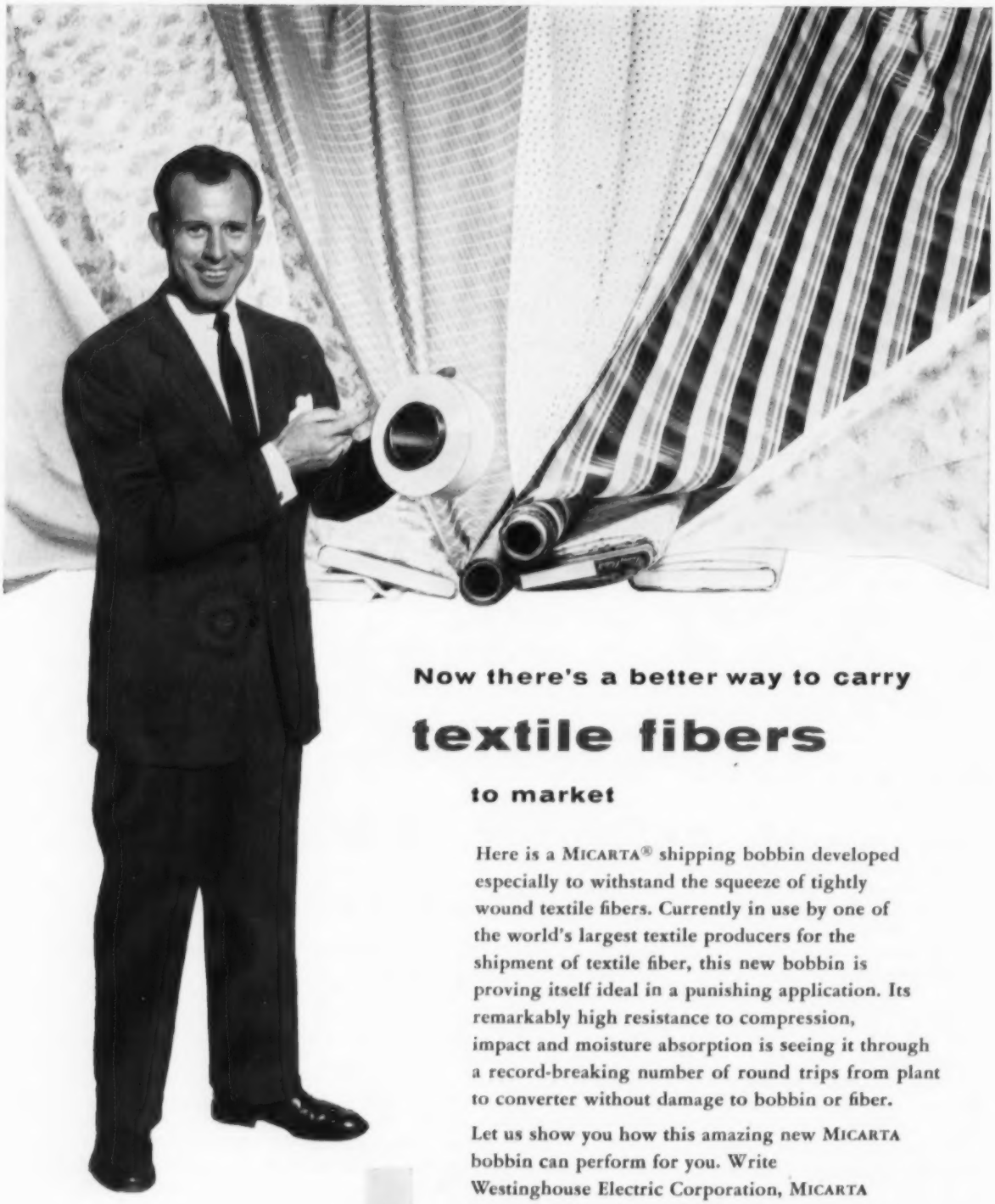
The government has, of necessity done a great deal of building itself, and has encouraged fantastic waste in this building, and the setting of wage patterns which could never have been established were the money supply regulated by normal competition instead of by a wasteful and extravagant government.

THE CURRENT national budget is the highest ever submitted in a peacetime year, and unless we run into a depression shortly, the next budget and the next one after that will very likely be still larger, because without this government spending, we probably will have a depression very quickly.

Military expenditures are blamed for the major portion of this tremendous national budget, and the cry is constantly raised that we can not cut our military appropriations. Our national safety depends on what we get from our military expenditures, and not how much we spend; and, of course, as the government encourages more and more inflation, it has to spend more and more money to get the same things.

Furthermore, in an economy where the government accepts responsibility for preventing a depression and maintaining an inflation, there is constant pressure to create more employment opportunities in government enterprises, and at abnormally high wages.

The inflationary morass which we are now skirting got there largely through the agency of this government policy of "tax and tax and spend and spend." All restraints on the profligacy of government were removed by the adoption of the Sixteenth Amendment, which permits our government to confiscate whatever amount of the national income it chooses to confiscate; and with bigger taxes, there is more money available to prop up sagging segments in an inflationary economy,



Now there's a better way to carry

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to market

Here is a MICARTA® shipping bobbin developed especially to withstand the squeeze of tightly wound textile fibers. Currently in use by one of the world's largest textile producers for the shipment of textile fiber, this new bobbin is proving itself ideal in a punishing application. Its remarkably high resistance to compression, impact and moisture absorption is seeing it through a record-breaking number of round trips from plant to converter without damage to bobbin or fiber.

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and the inflation can certainly last longer with these constant props than it would if allowed to follow its normal and natural course.

It doesn't seem like good business, or good economics, to encourage an inflation which is already well on the way to getting completely out of hand, but it is good politics. Probably nothing is any better politics than cheap, easy money, except free money.

Government policies have recently let interest rates try to find their proper natural level, and a loud outcry has gone up all over the country about this perfectly natural process of letting people who have money to rent get a reasonable rental for it. There is a widespread demand that the old policy of artificially cheap money be reestablished, and it can only be reestablished by the government agreeing to furnish the money for these low rate loans with the taxpayer, as usual, furnishing the cheap money.

IN JANUARY, on two separate occasions, the President appealed to labor unions to exercise restraint in demanding constantly higher wages which would mean higher prices, and to industry to avoid using these endless wage increases as an excuse for unjustifiably higher prices.

This appeal should have a very salutary effect — like reminding a hog if he keeps his feet in the trough, he will probably turn it over. The big labor monopolies have their feet squarely in the public trough, and so long as the government persists in slopping the trough, the feet and the hogs will remain there.

These big labor monopolies are immediately to blame for most of our inflation, because they endlessly demand more money for producing the same goods, and that can have no possible effect except raising the prices of goods.

Since the big labor unions maintain absolute monopolies within their fields, their employers have no wage-cost competition to meet, and can blithely pass on the increases in costs to their customers, and toss in a little extra profit for themselves. The big labor monopolies do not believe in competition, except individual competition between the different union leaders as to who can take the biggest bite out of the public purse for his followers.

The head of the auto workers union announced a few months ago that the next bite would make all of the others look rather modest; and, of course, if the auto workers can raise the price of automobiles again and get away with it, every other labor leader can see himself losing a juicy job unless he gets as much, or more, for his gang as the auto workers' leaders got for theirs.

Far from making any serious efforts to put a stop to this sort of thing, the federal government encourages it.

A STRIKE is nothing but a conspiracy to extort money by seizing property and holding it for ransom; and the federal government not only fails to disapprove of such a procedure, but will furnish at public expense an official to help arrange the ransom. A labor union in pursuit of ransom is perfectly ruthless, and is not concerned with who starves or freezes.

As this is written, a tugboat strike in New York harbor has been going on for several weeks, and has cut off most of the normal fuel supply from the city. Strenuous efforts by fleets of trucks and rail tank cars have managed to supply oil during an abnormally mild spell of weather, but if the February weather had equalled some of that in January, and the demands for fuel had radically increased, there would have been real suffering in the city and the ransom could have been arranged much more speedily.

The country as a whole has nothing whatever to gain, and much to lose, by these endless wage increases. The members of the bandit-like groups who are in a position to loot the general public are, of course, better off than the people who have been looted, but raising wages does not increase purchasing power, and can not. Wage raises simply increase the purchasing power of one group at the expense of other groups, and get the economy still further out of joint.

Increases in national productivity on account of technological advancements should be the property of all alike, and should not be hogged completely by the new Robber Barons who dominate industry.

Public relations *(from page 98)*

Career Days at Schools and Colleges. Career days at schools and colleges are participated in by our companies to encourage young people to enter the textile field.

Participation in Community Affairs Encouraged. Abney Mills and Erwin Mills personnel are encouraged to participate in the civic, church, social, and welfare group programs of their communities.

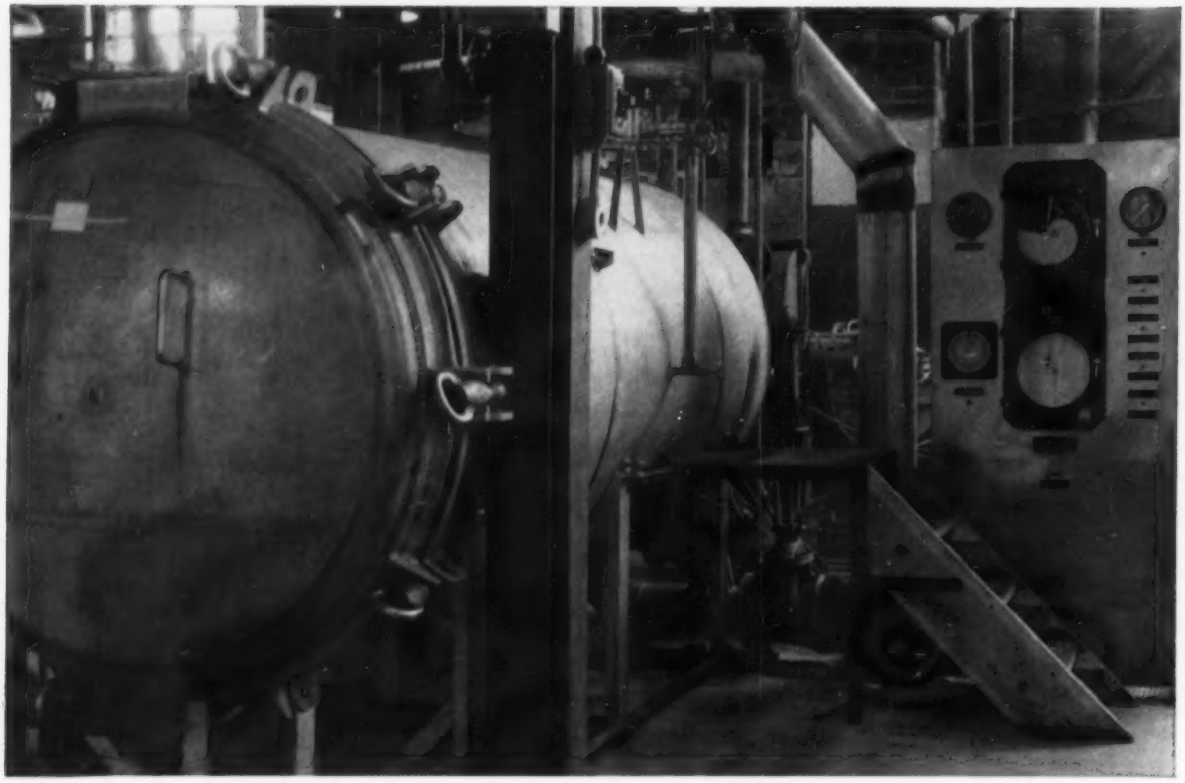
Press Day. On "Press Day," editors and reporters are invited to visit the plants as guests of the Company. The program includes tours, press conferences, and lunch, dinner, or refreshments.

Open House. "Open House" occasions give the community and the public a first-hand acquaintance with the operations of the company. "Open House" satisfies the natural curiosity of what goes on within the plant gates. The observance develops public attitudes based on fact. Supervisors and top executives meet the guests. The schools participate. Families of the employees are guests. Refreshments and other special inducements are offered to stimulate attendance.

Stockholder Meetings. Stockholder meetings feature the president's report on finances, operations, etc. These sessions also offer a golden opportunity in the area of public relations for a plant tour by the stockholders to see their company's processes, products, and procedures.

NOW FULLY AUTOMATIC DYEING...

with this new Taylor controlled Burlington Hy-Press Dye Machine



THE Palatine Dyeing Company, at St. Johnsville, N. Y., believes in using the most modern equipment—and in the virtues of automation. In fact, all of their dyeing equipment is Taylor controlled. Pictured above is one of Burlington Engineering Company's latest machines, equipped with a Taylor FULFLEX* Time Schedule Controller. This instrument automatically regulates rate of rise, hold time and temperature, according to a pre-determined schedule. Pressure gages on either side of the controller indicate inside-out and outside-in pressures.

This Taylor control system—

- **Assures a uniformly dyed product**
- **Cuts operating costs**
- **Eliminates the hazards of manual operation**

*Trade Mark

Whether you use beam, piece, skein, package or top dyeing, there's a Taylor control system specifically designed for your needs. Just call your Taylor Field Engineer, or write Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

Taylor Instruments
MEAN
ACCURACY FIRST
IN HOME AND INDUSTRY

Wool fabrics in these jars have been exposed to webbing clothes moth larvae for two months. Untreated fabric in jar on the left is badly damaged; permanently treated fabric in jar on the right is undamaged.

At United Piece Dyeing & Finishing Co., Mitin is added to dye beck with the dyestuff, after first being thoroughly dissolved by boiling up in a separate tank. Undyed goods are treated after fulling and scouring.

Staff prepared
Exclusive

Moths K.O.'d

Durable moth repellent is applied in the dyebath

UNITED Wool Piece Dyeing and Finishing Co., Passaic, N. J., was one of the first commission dyers and finishers in the country to offer application of a durable moth repellent to woolen and worsted fabrics as part of its services. Today, 75 to 85 per cent of the plant's production includes this application.

To be fully effective, a mothproofing agent must not only prevent young larvae from feeding, but must also arrest the development of newly hatched larvae. The ideal treatment must also be effective against both moth larvae and carpet beetle larvae. For permanent protection, the mothproofing agent must be resistant to washing and dry cleaning.

The mothproofing agent used at United Wool Piece Dyeing and Finishing Co. is Mitin (rhymes with kitten), a chlorinated aromatic sulfonic acid derivative produced by Geigy Dyestuffs Division of Geigy Chemical Corp. Mitin is substantive to wool; that is, it has an affinity for and combines chemically with the wool fiber. Since it is poisonous to moth and carpet beetle larvae, it meets the requirements for a permanent mothproofing agent.

Mitin behaves like a colorless dyestuff, and is applied to piece goods in the same way. At United Piece Dyeing and Finishing Co., Mitin is added directly with the dyestuff, after first being thoroughly dissolved by boiling up in a separate tank. The goods must be on the acid side before the Mitin is added.

For goods which are not to be dyed, the Mitin is applied in a dye beck after scouring and fulling. The amount used is 2½ per cent, based on the weight of the cloth. Treat for about 1½ hours at 160 F.

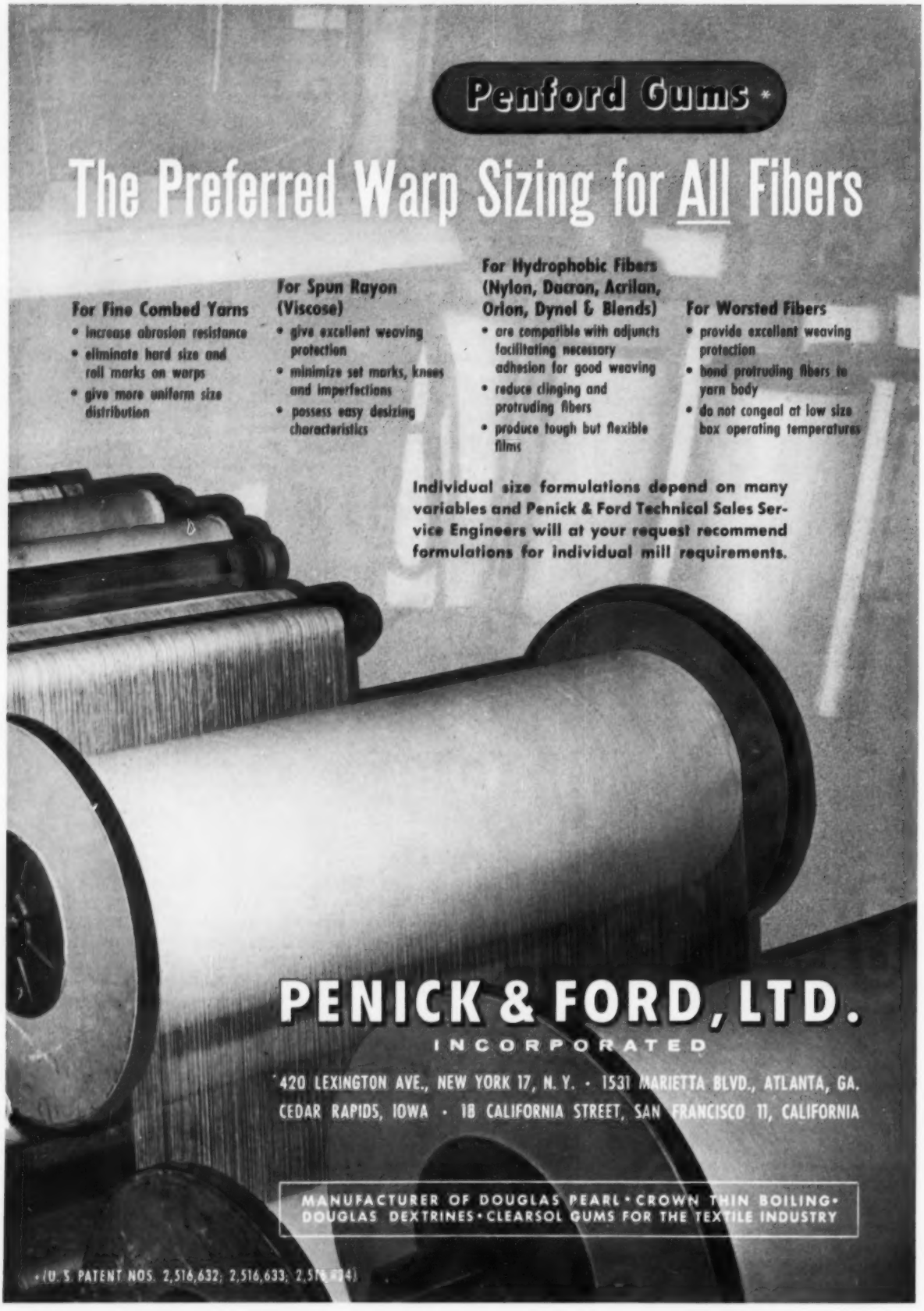
The shade and fastness of the dyestuffs are not affected by Mitin; it has no odor, and is not toxic to human beings. It is compatible with most dyestuffs, but must not be used in the same bath with basic colors.

Russian textiles *(from page 113)*

textile industries is that in the U.S.S.R. there is no problem of foreign competition, and the consumer has no choice as to the price paid for cloth.

The Ministry fixes cloth prices on the basis of the consideration mentioned, but if any undertaking meets difficulties, because of old machinery and so on, a special allowance, probably a bookkeeping balance, is made by the Ministry.

The price of cloth is reduced as productivity is increased and, in all fairness, it should be reported that over the past few years there have been several such reductions. But it might still be argued that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• eliminate hard size and roll marks on warps
• give more uniform size distribution
For Spun Rayon (Viscose)
• give excellent weaving protection
• minimize set marks, knees and imperfections
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For Hydrophobic Fibers (Nylon, Dacron, Acrilan, Orlon, Dynel & Blends)
• are compatible with adjuncts facilitating necessary adhesion for good weaving
• reduce clinging and protruding fibers
• produce tough but flexible films
For Worsted Fibers
• provide excellent weaving protection
• bond protruding fibers to yarn body
• do not congeal at low size box operating temperatures
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MANUFACTURER OF DOUGLAS PEARL • CROWN THIN BOILING • DOUGLAS DEXTRINES • CLEARSOL GUMS FOR THE TEXTILE INDUSTRY
* (U. S. PATENT NOS. 2,516,632; 2,516,633; 2,516,634)

the Russian consumer is having to pay too much for capital investment and that too little of increased production is available for consumption.

IN RUSSIA there are, according to the Deputy Minister of Textiles, 42% automatic looms installed, but it is planned to raise this by 1966 to 60%.

Asked about the Sulzer weaving machine, the Minister was evidently well informed about it, but he said that it was not their intention to import any as he did not think the loom was finality in design. He also implied that they hoped to produce something better very soon.

The first mill to be visited was the Scherbakdu Mill in Moscow. It was established 75 years ago and was, at that time, French owned. It was renamed after the revolution in honor of a worker who was killed in the unsuccessful rising of 1905.

Scherbakdu produces cloths of real silk (from Russia and China) and rayon. A small quantity of spun rayon is also used there, as well as a few cotton and wool mixtures. Just over 20% of production is devoted to real silk.

The team observed that the factory looked much older than its 75 years, with the outer walls loosely built. There was considerable rebuilding in progress when they visited the mill.

Bright — mostly cream — walls were in evidence throughout, and there was fluorescent lighting with an individual light on each loom.

In the weaving shed—divided into two sections — were 1182 looms. In the velvet section there were 389 nonautomatic looms. These were single-shuttle type, with two beams and alternating cutter which cut the warp pile in the loom. They were fitted with side-lever picking and were of 48 inches reed space. Running at 110 picks per minute, each loom was fitted with wire mesh shuttle guards on each end.

The top (pile) warp was lifted into position by means of a power-driven lifting device.

On real silk the looms were run one to a weaver, while on rayon the work load was doubled to two looms. Looms were well spaced.

On these looms, weaving warp pile plush, the top cloth, after cutting, had to be taken-up on the cloth roller by hand.

Besides the velvet looms the mill had 793 traditional nonautomatic looms, 52 of which were fitted with 800 needle Vincenzi Jacquards. A number of these looms were filling mixers of recent design. In another section there were pick-at-will looms weaving rayon warp and filling and running at 110 picks per minute across a reed space of 56 inches. These looms, too, were reasonably well spaced, well guarded, and appeared to be well maintained.

The filling mixers worked with a center feeler, but did not have stop-on-the-pick motions. In this section the looms were run from four to eight per weaver. The work load depended upon the type of cloth being made and the ability of the weaver.

A Soviet-made warp tying machine, operated by a man, was seen tying at 200-250 knots per minute. The warps were leased by women.

The mill produced 83,000 meters (about 91,000 yd) of cloth daily, working three shifts. Half of this was velvet furnishing fabric and some dress material, while the remaining half was dress materials such as georgettes, silk crepes, etc.

In the reeling and hank winding department the machinery seen was old and knots were tied by hand. The visitors were informed that knotters were unsuitable for real silk.

Cone winding was on frames of the split-drum type and knots were tied on a fixed device similar to the old fish tail now seldom used in Lancashire. The only modern machinery seen in this section was the pirn winding, which was on Hacoba-type automatic pirn winders made in Czechoslovakia. These machines had only recently been installed to replace manually operated ones.

Beams in this mill were section-warped and work loads appeared to be reasonable and comparable with those operating in Lancashire.

THE DELEGATES asked their Russian hosts to show them an old mill, and the one to which they were taken compared with the oldest in Lancashire. It was the Tryokhgorui Mill, Moscow. Originally a bleach and dye works, spinning and weaving were later introduced and today the mill has 1,300 nonautomatic looms, of which 1,100 are fitted with Jacquards. There are 44,000 ring spindles and 20,000 twisting spindles.

The finishing capacity will deal with 820,000 meters (about 888,333 yards) of cloth per day and as the mill itself only produces 85,000 meters (about 92,000 yd) of cloth per day, the remainder is brought from other mills.

Combed cotton, spun rayon, and filament rayon are all used in the plant. Tryokhgorui Mill has four floors and the weaving shed is on the top. Looms are closely set together and were among the worst spaced the team saw.

The Jacquard looms were running 12 looms to a weaver and the weavers did not appear to be particularly overloaded. In the shed there was little natural light and the artificial light was not good. The atmosphere was hot and humid and conditions appeared to be uncomfortable. The cloth from this mill, they were informed, was being exported to Indonesia, Iran, and other eastern countries.

The card room was of poor standard and much of the equipment was old. Ring frames were of varying ages. Carding and spinning equipment was Lancashire-made, and the name "Platt Bros., Oldham" was prominent.

Although the team was not specialized in its knowledge of finishing equipment, the views of one of its women members on the finished products of this mill might indicate the type of products that were seen emerging. She said, "The designs and color combinations on the finished materials were to me out of date and lacking in original motifs. I cannot understand how people can be so culture conscious, give so much thought to art, architecture, and beauty in the inanimate, and yet be themselves so unconcerned with their personal adornment."

Reason for the 2,000-mile jour-

Baltimore Aircoil Company, Inc. — uses Strobotac to measure and control speeds of inaccessible fans and pumps in condensers for air conditioning and refrigeration.

Redmond Company — production testing of small horse-power motors, with aid of Strobotac; each test station handles 250 motors per hour.

American Airlines System — Strobotac at repair shop checks operation of delicate vibrator units; mechanical tachometers proved useless in this application.

Remington Rand — Strobotac at final adjustment-and-inspection station permits visual slow-motion observation of electric shaver mechanical movements.

H. Maiman Company, Inc. — uses the Strobotac to great advantage in balancing knife blades, emery stones and other reciprocating components of cloth-cutting machinery and to keep vibrations and oscillations to a minimum.

American Thread Company — Strobotac checks registration of four-color printing press operating at speed of 175 ft/min — permanent installation permits operator to observe accurately printed labels as they move by.

Stanley Electric Tools — Strobotac measures motor speed of electric hammers in relation to oscillations per minute of cutting head — Strobotac is only instrument capable of measuring this motion and does the job without danger to personnel.

Ohio Boxboard Company — Strobotac eliminates blistered cardboard; by examining the molten corrugated medium under stroboscopic light as it "fluffs" out, it is possible to make adjustments to insure uniform adhesion.

Duplan Corporation, Burnsville, North Carolina Division — Strobotac measures rpm of spinning bobbins to insure that tension, twist, size and hardness of packages are uniform. Faulty operation resulting from crooked bobbins, badly positioned or broken flyers, sluggish oil in spindle bolster, and other defects are readily revealed.

Jones and Laughlin Steel Corp. — the Strobotac helps guard against recurring imperfections in steel being rolled at 70 mph; the ratio of slip between top and bottom rolls of a five-stand, four-high Cold Reducing Mill is accurately checked without need for expensive shutdown.

Hydraulic Equipment Center — in design and installation of hydraulic pumps, the quantity of oil pumped per unit time must be carefully controlled; Strobotac provides a highly accurate and easily portable means of correlating the speed of the power unit with amount of oil pumped.

American Bosch Corp. — uses Strobotac for final inspection of diesel fuel-injection nozzles, not only to insure that fuel distribution in each cylinder is accurate, but that the spray has a precise pattern in the combustion chamber — every nozzle is tested and each spray pattern checked against a master-spray chart.

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ney to Uzbekistan by the team was their request, before leaving England, to see one of the cotton growing areas of the U.S.S.R.

Tashkent is the capital of Uzbekistan, and here the team visited the Stalin Tashkent Textile Combine, a modern single-story building which was built in three stages.

The Combine comprises ten units—three spinning, two weaving, one cotton thread, a printing mill, a finishing mill, a large engineering department, and an elastic manufacturing plant. A total labor force of 17,000 is employed.

The mill contains 300,000 ring spindles and 5,400 automatic looms. Local cotton only is used, this having a staple length of 1 5/16 inches. The Combine has a daily output of 640,000 meters (about 700,000 yd) of cloth and 1,000,000 bobbins of thread. Working is three-shift.

The two earlier projects were first inspected. The rooms were light and airy, and pneumatic attachments were fitted, or were being fitted, to all ring frames. Most frames were using some form of high drafting system, mostly Casablancas-type.

Card and opening room equipment was exceptionally well spaced and both modern and clean, and the atmosphere was remarkably clear. Women were employed as strippers, grinders, and lap carriers.

Medium to coarse counts were being almost wholly spun directly onto pirns for the weavers' shuttles. As the cloth being woven was a mass-produced print-cloth no bunches were necessary and the loom battery was actuated by the fork and not by a feeler motion.

Warp yarn was wound onto cones by a copy of the Roto-Coner, for use on high-speed beaming frames with magazine creels and electric stop motions. A snap check on the warper showed a yarn speed of 270 yards per minute.

Loom beams were prepared on a traditional tape sizing frame of old design, operated by men. These frames, amidst the other modern machinery, stood out like a sore finger; the director knew about the latest developments in this field and had decided it was not worth while using them. Atmosphere in the weaving sheds was changed 15 times per hour. The temperature was controlled at 78 F, but in summer it sometimes got up to 84 F.

All the looms were automatic, Soviet-made, and were a good replica of the British Northrop. They were well spaced, having a weaver's alley of 20 inches between beam wheels and back alleys of 24 inches between the flanges. The looms were spaced in blocks of four, and the broad alley between each block was 50 inches, with fairly frequent alleys nearly twice this width.

Looms had a reed space of 45 inches, and were running at 200 picks per minute. Low-grade plain cloth with a few five- and eight-harness sateens—both grey and a few colored stripes—were being woven. The looms were working 24 to a weaver, although this would vary according to the experience and ability of the operative.

All looms were equipped with steel heddles, and although most seemed to be fitted with three-try filling motions, very few of these seemed to be working. Generally speaking, however, the looms seemed to be maintained in an excellent mechanical state.

Cloth was inspected and dressed by female operatives on an inspection frame taking cloth from a back roller to a front roller. The speed of the take-up was controlled by the operative.

IN THE PRINT WORKS the delegates once again encountered the Soviet lack of interest in modern design. The plant was geared to print from four to sixteen colors, although it seemed at the time that only up to ten colors were being printed.

Asked about the archaic designs, the manager explained that every three months designs were submitted to a special board comprising "buyers" from various regions, and a selection of designs was made for next production period.

It was said that abstract designs had been tried but the consumer did not want them. Whether it was the board or the consumer who was responsible for a continuance of these antiquated designs the team had no means of checking.

For a country the size of the U.S.S.R. it seems that textiles is a very neglected subject. The Tashkent Technical College provides technical education in textiles within the republic of Uzbekistan. Of the 2,000 students enrolled, about half are women. There are four other textile colleges in the U.S.S.R. and two universities have faculties of textiles.

While textile manufacture in the Soviet Union appears to be progressing very rapidly in capacity, it is fairly evident from the cursory examination made by the team that they are still a long way behind the West. Possibly, as mentioned earlier, textiles is not very high up on the list of priorities and there is not the same respect for a textile technologist as, say, for a technologist devoted to harnessing atomic power for "the freedom loving peoples of the People's Democracies!"

Czechoslovakia, as far as European observers can estimate, appears to be the country at present most advanced in textile machinery design particularly weaving machines, while East Germany might well be the leading Iron Curtain country as far as the new fibers are concerned.

Russia itself seems to be happy to copy the best Western equipment and to make this work to the best of its ability. As far as mill design and auxiliary equipment is concerned, skilled people from other industries can be brought to the service of the mill and so assist in planning along the latest lines. Thus we see that the mills themselves are progressing very rapidly, but that the design of textile machinery is lagging somewhat.

In conclusion the Deputy Minister of Textiles asked the team for their criticism of his industry and they obliged him. To quote the team, " . . . but then our criticism seemed to be resented, not in any bitter way, but in the way that a mother, after asking what you think of her baby, becomes sad if you don't think it wonderful."

Does chelation actually represent a new kind of chemistry? Are the possibilities as exciting as many seem to think? This series endeavors to answer these—and many other—pertinent questions on this fascinating subject. It is hoped chemists, engineers and purchasing agents alike will find these answers helpful. Now on to . . .

DOW

The Chemistry of Chelation: Part II

Versene and Versenol Series · Descriptions and Uses
A measure of Value · A Suggestion

To review in capsule form: Part I introduced chelation, offered examples of typical chemical reactions, applications, and discussed future possibilities. You will remember that a chelating agent is defined as a chemical which surrounds metallic ions with a multiple-ring structure that keeps the metal chemically inactive and holds it in solution. The applications in industry are many—and new ones are being found almost daily. That, of course, brings us to another consideration: different chelating agents for different uses.

VERSENE® AND VERSENOL®

Chelating agents are commercially available from Dow as 15 different products—all based on aminocarboxylic acid derivatives. Among these, wide spectrum performance is shown by two series of products. The Versene series of products (Versene® 67, Versene 100, Versene Powder, Versene Beads, Versene 9 and Versene Acid) is based on EDTA* and the sodium salts of this material. The Versenol series (Versenol® 120, Versenol Powder and Versenol Beads) consists of various physical forms of Na_3 HEDTA**. The Versene series, except for Fe+++ in the alkaline pH range, is generally the stronger series of the two (more completely chelates the last traces of metal). The Versenol series is notably stronger for Fe+++ in the mildly alkaline pH range and is usually cheaper on a performance basis if the consumer can tolerate the weaker chelate structure. Versene is the strongest, most stable commercially available chelating agent. It is the one with the greatest number of successful applications.

DESCRIPTIONS AND USES

Here are three Dow chelating agents together with their descriptions and uses:

Versene 100 is a concentrated aqueous solution of a technical grade of the tetrasodium salt of EDTA . . . widely used in textile processing, detergent formulations and metal cleaning.

Versene Acid is a dry form of EDTA technical. It is used in many operations as a raw material for the preparation of various derivatives, such as metal chelates, salts (K, NH_4), esters and many others.

Versenol 120 is a concentrated aqueous solution of a technical grade of Na_3 HEDTA. It is also very valuable to detergent, textile and metal-cleaning processes.

Naturally these three specific agents are not the answer to *every* problem. That's the reason for the many other Versene products, to be discussed in Part III.

A MEASURE OF VALUE

A measure of the broad performance capacity of a chelating agent can be obtained from its *chelation value*—determined on a reference metal. Calcium is used as the reference metal under the standard test proceedure accepted by the industry. Dow prefers this "performance basis". It specifies more clearly what chelating agents *actually accomplish* than such terms as "% solids" and "% active". Consequently, the "100" in Versene 100 means that one gram of this product will chelate 100 milligrams of calcium carbonate in accordance with the standard test procedure. By the same token, one gram of Versene 67 will chelate 67 milligrams, and so on.

A SUGGESTION

Two closing thoughts: Dow wants to help in any way possible to further develop the applications for chelation. Also important, Dow would like to hear from *you*—your thoughts, reactions, suggestions. Please inquire about any problems or ideas you may have. Information or actual technical assistance will be forthcoming promptly. Write, on your company letterhead, to Technical Service and Development, Dept. SC 912L-1, THE DOW CHEMICAL COMPANY, Midland, Michigan.

*Ethylenediaminetetra acetic acid

**Trisodium salt of N-hydroxyethylethylenediaminetriacetic acid

ADDITIONAL TOPICS IN THIS SERIES

PART III — Specific chelating agents for specific applications (agent for iron control depends on pH—Versene Fe-3 Specific® for iron and transition metals on the alkaline side, Versene T® for iron in presence of free caustic—other solutions to special problems).

PART IV — Applications in specific industries (formulation of alkaline cleansers—stabilization of hydrogen peroxide and Kier boiling in textile processing—uniform control of trace metal catalysts in polymerization of synthetic rubber—other industrial applications).

YOU CAN DEPEND ON DOW

Rhode Island school to broaden design course

■ The termination of Rhode Island School of Design's degree programs in textile engineering and textile chemistry by 1960 and plans to broaden the college's offerings in textile design have been announced by President John R. Frazier. The proposed readjustment in the 53-year-old textile program, first made public last November, has received final approval of the board of trustees.

Mr. Frazier noted that while no new candidates for bachelor of science degrees in textile engineering or chemistry will be accepted, both departments will continue to operate at full efficiency for the benefit of presently enrolled undergraduates.

According to Mr. Frazier, the present textile faculty, most of the power equipment in the college's pilot plant, and elements of textile technology instruction will be retained in effecting a major revision of the present textile design curriculum. "This revision is now in process, predicated on the belief that there is a growing need for the textile designer to understand not only the principles of color and design but the properties of fibers and the technology of manufacture," he said.

"We are enjoying the close cooperation of leading textile executives in our efforts to evolve a textile design program that will be without equal in this country or abroad. We estimate that it will take from three to four years to bring the revised program into full and effective operation."

It is the college's present plan to continue courses in textile manufacturing and chemistry in its evening extension classes.

Carpets from T.N.D. (Tycora, nylon, dynel) —not T.N.T.

■ In the January, 1957, issue of C. H. Masland & Sons company publication, "The Shuttle," availability of carpets made from Tycora (a modified continuous filament yarn produced by Textured Yarns Co.), high-bulk nylon, and dynel yarn was announced.

Sales points given for "Typoint" carpet made from Tycora yarn were: (1) Tufted loop-pile fabric with a completely new texture and appearance; (2) the continuous fiber yarn is clearer, cleaner, and less fuzzy than spun nylons; and (3) the yarn eliminates the danger of shedding, pilling, and fluffings since the continuous fibers all are firmly anchored into the back.

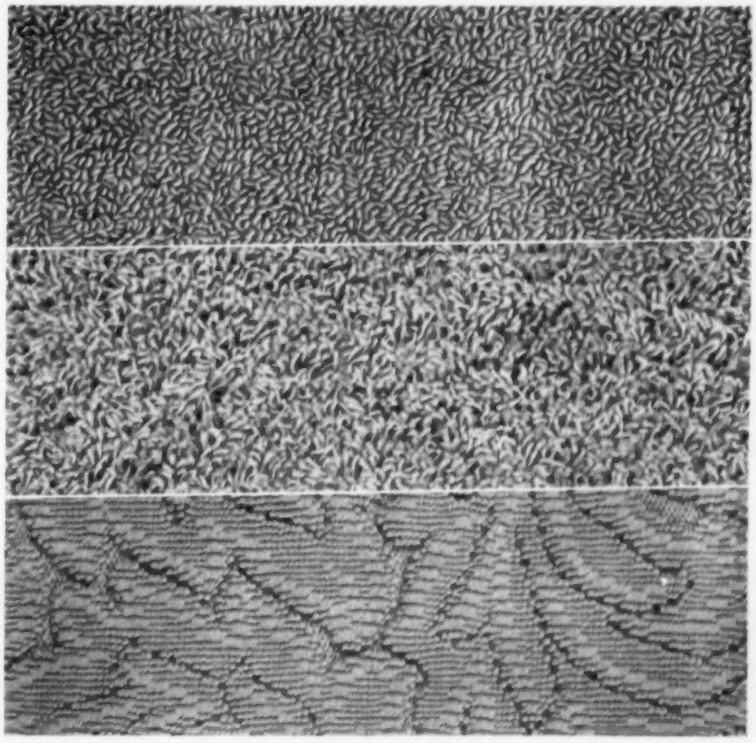
In the publication's editorial by Frank E. Masland, Jr., Tycora was described as "a continuous filament yarn with all the advantages of spun staple and continuous filament and with none of the weaknesses of either." A product possessing such clarity of color can have no "hidden faults," he said.

"With all the texture of a 'shaggy dog' and 'not a pill in a carload' " was the way Mr. Masland referred to Rutledge Friezé, a carpet woven with high-bulk nylon. Some of the advantages claimed for this carpeting were: rough texture and great wearability, specifically engineered to reduce fuzziness and shedding, 100% nylon face means easy cleaning and spot removal, and skein-dyed for maximum twist retention and superior appearance.

"Dynamic Wilton" was the name given to one of the carpets made from dynel yarns. According to the company, dynel performs as well as, or better than, wool in soiling, wear, and resilience; it has exceptional stain resistance, far exceeding that of wool; and, unlike other synthetic fibers, it does not produce unpleasant static sparks.

The company also offers a commercial carpeting utilizing dynel yarn. Called "Dynapoint Masloc," it is a heavy round wire velvet with 100 per cent dynel face.

Carpeting made from Tycora yarn (top photo), high-bulk nylon (center), and dynel.



NO NEED TO GAMBLE WITH PROFITS

MODERNIZE YOUR SACO-LOWELL F-7 FEEDERS

NOW WITH THESE 7 *NEW* SUB ASSEMBLIES

ADJUSTABLE GRID BARS FOR DOFFER ASSEMBLY

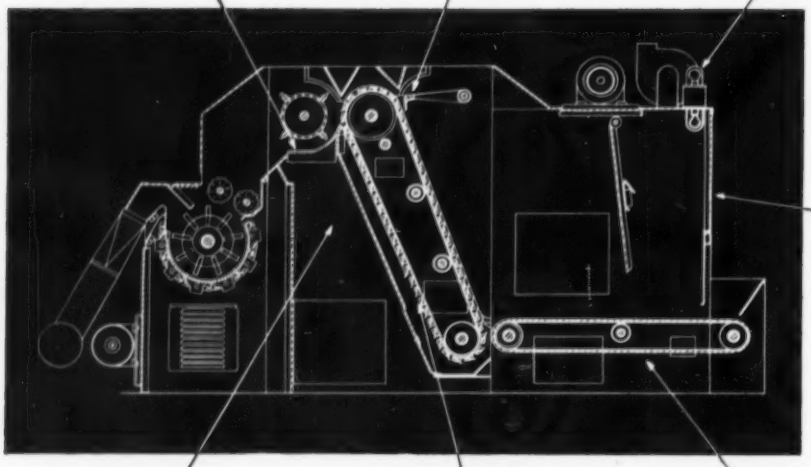
Adjustable cheeks support 16 grid bars. The new cheeks make it possible to arrange the bars at the settings and angles needed for more exact control over quantity and quality of waste extraction.

HIGH SPEED COMB

The aluminum saw-tooth high speed comb, operating at 250 strokes per minute, doubles the opening action on the stock. The comb, secured to its shaft with clamping screws instead of pins, is easily installed.

AUTOMATIC SIGNAL LIGHT SYSTEM

New signal lights, installed in the top girt, eliminate all guess work by indicating which machine should be fed. A third light is located inside the hopper for visual inspection of stock through a transparent window.



HOPPER INSPECTION WINDOW

A clear plastic window, 11½" x 14½" is installed in front of the feed hopper to enable the operator to see the level and condition of stock while the F-7 Feeder is in operation.

NEW HOLLOW STEEL CROSS SHAFT SLEEVE

The protecting hollow steel sleeve encloses the cross shaft, eliminating periodic hand cleaning at this point.

NEW LIFTING APRON

Leather strips extending beyond the ends of the slats of both the lifting and bottom apron eliminate the possibility of cotton falling off the sides of aprons. There is no need for flanges on the apron pulley.

NEW BOTTOM APRON

The new style bottom apron slats are pyramid shaped so stock will not cling when presented to the lifting apron.

The rising use of machine picked cotton has placed heavy demands on the opening room. In many cases, existing equipment has proven inadequate in coping with the added leaf, stalk and seed fragments. To insure that the first breakup of stock, so important when processing mechanically harvested cotton, will be as complete as possible, we offer these Seven New Component Assemblies for the F-7 Feeder.

The improved breakup with modernized F-7 Feeders makes the major cleaning job far easier for the rest of the Opening and Picking line, as well as the Cards.

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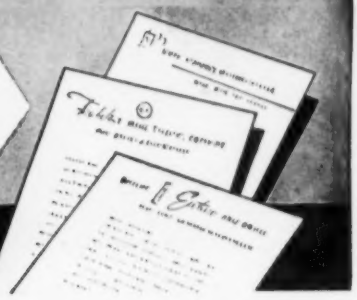
HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
• Manufacturing Briefs • Kinks & Short Cuts • Comments from Readers •



Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: The Editors, "Textile Industries," 806 Peachtree St., N. E., Atlanta 8, Ga.

Tried this approach to continuous strippers?

EDITOR TEXTILE INDUSTRIES:

In 1947 I accepted a card room in South Carolina equipped with Whitin cards. Sixty of them were running with continuous strippers.

I soon noticed that no amount of grinding would sharpen the wire. Even after eight hours under the emery the wire was not pointed. In fact the fillet surface reminded me of a glassy surface. The strippers were set too deep.

Since I had been hired to change the card room from carded to combed stock, I knew what I had to do. Also I knew right then that with what I had on hand I could not make a "go" of the new job. But I had to try to salvage what I could of the cylinder clothing.

I went to work to see if I could get the cards sharp before we got our combers in operation (which was to be several months away, and to my advantage).

I set up an experimental card on which I finally got the wire sharp enough to make a try. The continuous stripper setting was 1¼". This figure is the width of an area of chalk removed by the stripper teeth as they are turned in their running position in the cylinder wire with the cylinder standing. The chalk band reaches across the full width of the cylinder. I changed the setting to ¾". This kept the needles from going so deep into the cylinder wire.

Next I changed the speed of the continuous stripper from 1800 rpm to 1500 rpm. This speed gave me about 15% more surface speed on the continuous stripper than on the cylinder. Also, by cutting the speed on the stripper I kept the needles from hitting the cylinder so often, and at the same time I got enough action to keep the cylinder stripped clean. The card stayed sharp longer. I think the 1¼" or 1⅛" settings are too wide. Even at best the stripper needles are giving the cylinder wire a terrific beating. Anyway, I get better results from the narrower setting.

Something is to be gained from slowing down the grinding (traverse) roll to 525 rpm. This can be done by using a larger pulley on the traverse rolls. Use a 5½" or 6" pulley for best results; and if the cards are dull, grind about 8½ hours until the cards get in better condition.

While continuous strippers can be used to advantage in print cloth mills, on denims, etc., I do not

Win $100 HURRY! HURRY! HURRY! **Win $100**

Kink Contest Closes April 15, 1957. Send Your Entry Now!

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance, and the $100 award will be made to the winner as soon as all entries are judged.

The contest rules are simple:

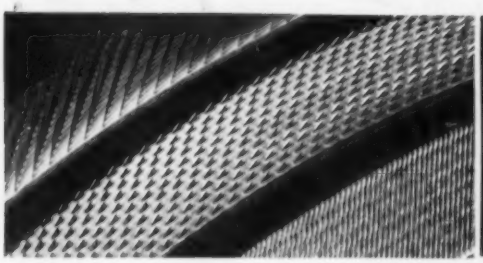
► All contributions must be postmarked not later than midnight, April 15, 1957.

► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously and must not be submitted to any other publication.

Send your contest entry to: The Editors, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 8, Georgia.



CARDER'S CORNER by Ashworth

CARDERS!! The purpose of this page is to serve as an open forum each month. If you have problems which you would like to throw open for discussion or if you have further comments on problems already presented, write to CARDER'S CORNER, care of Textile Industries, 806 Peachtree St., N. E., Atlanta 8, Ga.

Volume I, Number 4

"FLYING UP"*

"Recently we conducted a survey of our card room to determine the cause of an outbreak of 'flying up'. The breakdowns from this were costing us real money. We knew from experience the conditions leading to 'flying up'. We believe our analysis and the steps taken to get rid of this trouble will be of interest to all carders." Mill #4

Flying Up Caused By

1. Parts of the card rubbing against each other. Cylinder rubbing frame sides.
2. Bad clothing.
3. Loose clothing.

In some instances our settings were so close that the cylinder was rubbing on the plates, flats and screens. These settings were backed off and the overseer now checks setting when the grinder sets a card. Some cards were found out of line or level. Expansion of cylinder at the affected side caused facing and flying up. This condition was corrected.

Some of our clothing was just too old to be run. (We found that when some of the cards had been reclothed, we had missed a few during an economy drive.) Clothing was replaced.

Some of our newer clothing was not tight. (Another economy measure backfired. We tried to do the job ourselves with inexperienced help.) More clothing replaced.

These corrective measures solved our problem and our card room is now running fine.

*"Flying Up" i.e. "Raised or Blistered Fillet"

ASHWORTH BROS., INC.
American Card Clothing Co. (Woolen Division)
Fall River*†‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Los Angeles‡ (E. G. Paules)
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3 Factories • 6 Repair Shops • 7 Sales Offices

PRODUCTS AND SERVICES
Clothing for Cotton, Wool, Worsted, Silk, Synthetic Fibre and Asbestos cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Topflats Reclothed.

Ashworth PIONEERS IN CARD CLOTHING

3 FACTORIES • • • 6 REPAIR SHOPS • • • 7 SALES OFFICES

recommend them for use on combed yarns or on quality carded yarns. But wherever or whenever they are used, they cannot be expected to do their best work unless both the doffer and flats wires are kept sharp and in good condition.

Mills using continuous strippers should check the safety knock-offs on their pickers. This device is on pickers to take care of thick places in the lap by knocking the picker off when such a spot appears. Once the picker has knocked off because of this condition, the lap should be doffed and set aside as a reject. If the lap is allowed to go into production it will cause plucking at the licker-in. Plucking will knock needles out of the strippers.

I also have had satisfactory experience with cotton cards equipped with continuous strippers operating on a nylon-Dacron blend. In this case the strippers worked all right and seemed to do little damage to the cylinder wire.

CONTRIBUTOR No. 8966

One way to repair body machine press-offs

EDITOR TEXTILE INDUSTRIES:

There possibly are as many ways of repairing a press-off as there are operatives, but here is one which works well for me. Others possibly will find it helpful.

First of all, relax. Don't approach a press-off the way a duck does a June bug. Hold the needle, or whatever tool is used, lightly—just let it take its own course, so to speak. Gripping it will only lend awkwardness to an already glum situation.

Relax the fabric until it is slack enough to be stretched back into position without being too slack or requiring too much effort. Pick the cloth on the needles very lightly, just enough to hold it until the entire fabric has been picked up. Once this is completed, turn the machine take-up until the cloth is drawn to operating tension or thereabout.

Crank the machine by hand until the press-off is clear of the needles (inspect closely to make sure the press-off is repaired), then turn the machine by hand again a few times and listen closely to the machine noises while it turns. The trained operative's ear can tell him a great number of things about the condition of a familiar machine. If all sounds well, then start the machine under power.

CONTRIBUTOR No. 8954

Infrared light dries card web

EDITOR TEXTILE INDUSTRIES:

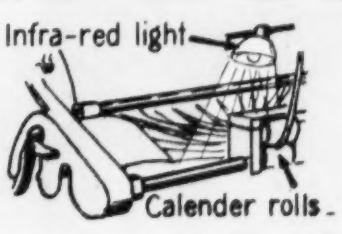
There were great deal of lapping-up trouble in Japan few years ago when running Mexicali cotton during rain season due to honeydew contaminated cotton. This trouble was so serious as one mill had to stop their operation for a day long due to lapping ups. It is said the other reasons for lapping-up is attributed to the following factors:

1. Fine (low micronaire) Fibers
2. Too Much Moisture
3. Other Sticky Substances (and above mentioned honeydew)

Worst case is expected in first two and honeydew contaminated.

The solution of this problem suggested at that time was:

1. Reduce percentage of mix of contaminated and/or fine fibered cotton.
2. Reduce relative humidity as low as 55%.
3. Stay open the bale until dry out.



All three remedy was almost impossible and impractical for Japanese mills.

A Japanese mill, therefore, tried the Infra-Red light method on their drawing frame and the result was quite good.

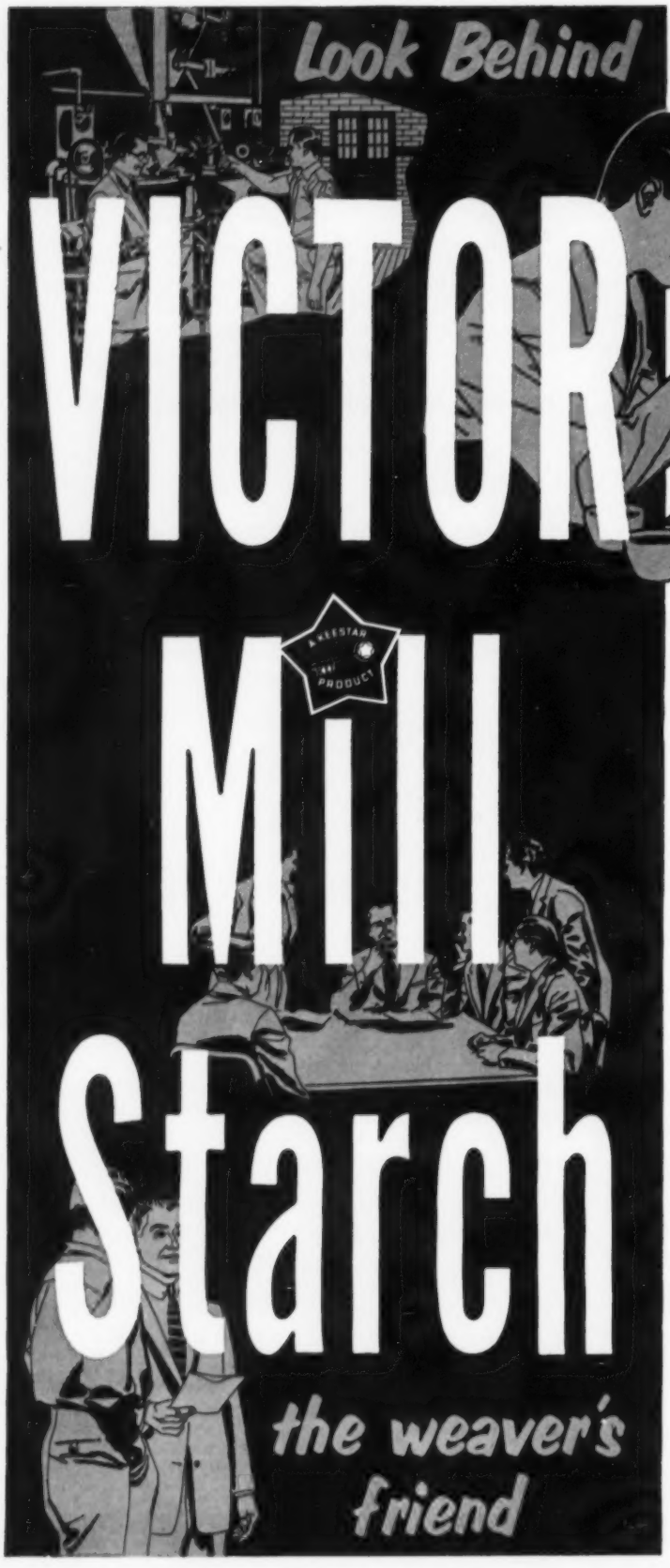
As the honeydew trouble not continue long and not happened after that time, this method was used so widely; but assuming that contributing this article to your magazine will benefit your readers I am sending this to you.

To install lights on drawing frames like they did in the Japanese mill referred to above requires too many lights and it is not economical from the view of installation cost and electric consumption. So, I changed to install the light on the calender roller of the card in which way you can save lots of money for lights and electric power and have the same result.

The infra-red light works as a partial heating system and dries the honeydew sticky substances or moisture to eliminate the lapping-ups.

This installation is most effective on high moisture and sticky substances, and especially on honeydew.

CONTRIBUTOR No. 8970
(Japan)



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Victor Mill Starches are so noted for uniformity, they are a recognized aid to uniform slashing operations. But that alone can't explain the big preference for Victor Mill and other Keestar products.

Keever goes beyond "delivering the goods." Each sales-service man knows the textile industry. He is a trained specialist in mill problems. He consults with you all down the line utilizing the collective experience of nearly 40 associated textile engineers, chemists and technicians.

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TEXTILE SALES DIVISION
1500 S. C. NATIONAL BANK BLDG.
GREENVILLE, SOUTH CAROLINA

Graphited bushings wear longer

EDITOR TEXTILE INDUSTRIES:

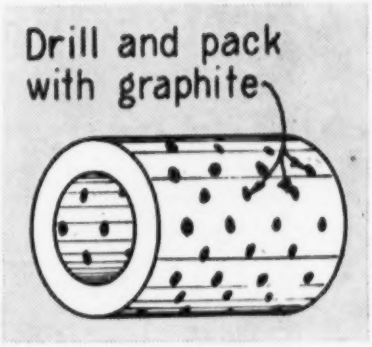
At one time in our twister room the spindle speed on a section had been increased from 6000 rpm to 7000 rpm. The twisters were driven from overhead pulleys, and as the overhead speed could not be changed, the increase in speed was brought about by substituting smaller twister pulleys.

It was soon discovered that in order to keep the new speed at the newly set standard the leather belts had to be kept tighter than previously. This resulted in a quite rapid wear of the bushing in the loose pulleys. This undesirable situation came about because the belts rode on the loose pulleys when the twisters were stopped for greasing or for any other purpose.

Then too the belts were on the loose pulleys morning and noon when the speed was first started and before the frames were put into motion. All contributed to the wear on the loose pulley bushing. It became quite a serious matter and it was found necessary to keep extra loose pulleys on hand to replace those with worn bushings and until the latter could have new bushings inserted.

In the search for a remedy to eliminate, or at least, to reduce the fast wear, we decided to use a bronze bushing. Although they lasted longer than the cast iron bushings they still wore quite rapidly.

Finally, we decided to drill holes in the bronze bushings and fill them with graphite. The few



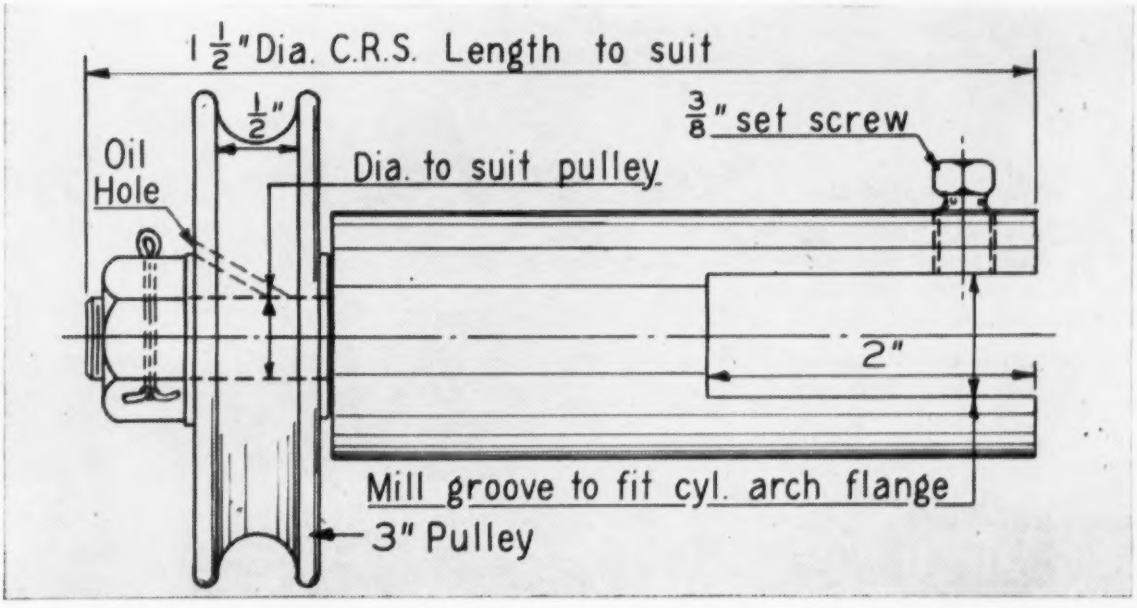
pulleys that were first fitted for trial purposes worked out so well that the rest of that particular section which had this trouble was equipped with the graphite-filled bronze bushings.

CONTRIBUTOR No. 8947

Idler improves card grinding

EDITOR TEXTILE INDUSTRIES:

In the process of grinding card flats, the band which drives the drum grinder often becomes slack and will not drive the drum at sufficient speed to enable the section man to do a good job of pointing the flats. This is caused in part by the drum being able to pick up



In Selecting CONING OILS...

Do you know:

1. The Easy Method to Test Percentage of Oil Pick-up?

2. Which of the 6 methods of applying coning oils gives the most finely controllable amount of pick-up?

3. Which of the 9 Nopco Coning Oils is best for (a) Ban-Lon yarns; (b) Viscose knitting yarns; (c) Low twist multifilament yarns?

New NOPCO Report gives answers to these and many other questions you should know

This booklet represents the distilled experience of Nopco's technical specialists over many years of formulating these lubricants and adapting them to the ever-changing needs of America's leading textile mills. It includes the newest lubricants balanced with antistatic control and built-in detergency for optimum effectiveness in producing cleanest finished fabrics. Send for your free copy today. Nopco Chemical Company, Harrison, New Jersey.

Send for your free copy today

NOPCO

PLANTS: Harrison, N. J.
Cedartown, Ga. • Richmond, Calif.
London, Canada

speed as it passes from one flat to the other.

When the grinder reaches the heel of a flat the high speed of the grinder will remove more metal from the heel than it will at the toe of the flat, because the slack band will allow the drum to slow down. Eventually the surface of the flats will be ground in a rough taper from the heel to the toe.

The flats are machined to permit a given clearance from the cylinder wire at the toe of the flats, and to give a different clearance at the heel of the flat. The difference is deliberate and was so set up by the card manufacturer.

Consequently the effectiveness of the flats grinding depends in part on maintaining these clearances; and it cannot be done when the drum grinder is adding its own variation to those clearances.

A simple idler can be made to allow the section man to keep the band tight. It is made from a piece of 1½" cold rolled steel shafting into which a slot has been milled at one end to permit the shaft to be mounted on the card cylinder flange. A ⅜" set screw is provided at the slot to allow the section man to anchor the shaft to the flange.

On the other end of the shaft cut a shoulder to receive a 3" pulley containing a ½" groove in the face to fit over the band. The length of the shaft must be determined locally to allow the pulley to line up with the band after it is threaded for pulling the drum.

The pulley and shaft may be matched the easiest way possible; if a pulley fitting the description is on hand, prepare the shoulder to fit the bore of the pulley. If both the pulley and the shoulder must be made, select a convenient bore and turn the shoulder to fit.

The pulley should be held on the shoulder by a washer and nut. If there is any doubt in the mind of the machinist who makes up the pieces as to the reliability of the nut and washer combination, let him pin the nut to the shaft, or adopt some other means of securing the nut against reverse rotation.

Be careful in milling the slot in the end of the shaft. The slot should be no larger than is necessary to permit a sliding fit over the flange. Again this is a problem best solved at the local scene.

Some means of lubricating the pulley should be provided, such as an oil hole or a grease fitting. If ball bearings of the lubricated and sealed variety can be adapted to the assembly, so much the better.

In operation it is a simple matter for the section man to slide the idler around the flange until it contacts the band. Then any amount of force necessary to keep the slack out of the band can be applied, and the set screw tightened to hold the setting.

CONTRIBUTOR NO. 8952

Protect take-up belts

EDITOR TEXTILE INDUSTRIES:

Since the take-up belt on a knitting machine plays a major part in the proper working of the take-up, it needs to stay the desired length at all times. When stopping a machine over any period of time it is very important that the take-up belt be made slack by running the take-up up on the fabric enough to make the belt slack.

If the machine is stopped over a period of time leaving the take-up belt with pressure on it the belt will stretch enough to cause it to have to be cut when the machine is started up again.

CONTRIBUTOR NO. 8946

Suction cleaner troubles?

EDITOR TEXTILE INDUSTRIES:

In running coarse numbers on frames equipped with lint suction devices in place of scavenger rolls, lap-ups or chokes sometimes occur on the spinning rolls. When this happens, look to the collector boxes for the trouble. Sometimes they fill very fast and thus cut down on the efficiency of the system. Perhaps the schedule should be altered to allow the boxes to be emptied more often.

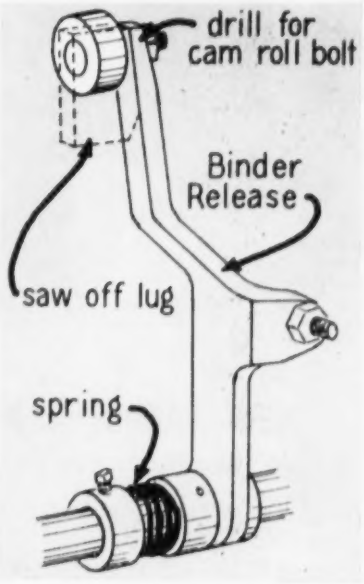
CONTRIBUTOR NO. 8965

No more binder hanging-up

EDITOR TEXTILE INDUSTRIES:

I had been having trouble with my binder release fingers on W-3 looms wearing into the binders and causing the shuttle box to hang up. Those were old type binder release fingers: I call this modified finger "the new type binder finger."

I sawed off the binder release portion and drilled a hole at that point to receive a cam roll stud or a bolt. Onto this bolt I mounted a cam roll such as is used at the drive end of the loom.



I find that the roll gives less wear on the binders and does not hang up the box.

CONTRIBUTOR NO. 8961

Your entries for the current contest must be postmarked not later than midnight, April 15.

SPECIAL!

NEW CARPET YARN SPINNER

- Direct sliver to yarn spinning.
- Processing any staple from 2⅜" to 8", alone or in blends, with "Versatex" drafting.
- For yarns up to 3s cotton count.
- Package size 10" x 6½", with a range of spindle speeds up to 3,000 r.p.m.
- Weight of yarn on the package 4 lb.
- The carpet yarn spinner is a standard, single sided machine of 48 spindles in two rows.
- Available on quick delivery.

UP TO

6 miles

OF KNOTLESS YARN ON THE BOBBIN!

You are cordially invited to submit sliver samples of material for spinning to your own specification. Working demonstrations will be arranged by appointment.

ATKINSON, HASERICK & CO., INC.
ENGINEERS & AGENTS FOR THE WORLD'S LEADING TEXTILE MACHINERY
FRAMINGHAM, MASS. · CHARLOTTE 2, N. C.

PLATT BROS. (SALES) LTD.
OLDHAM, ENGLAND
MARKETING THE TEXTILE MACHINERY MADE IN THE WORKS OF
PLATT BROTHERS & CO. LTD. PLATTS (BARTON) LTD.
HOWARD & BULLOUGH LTD. DOBSON & BARLOW LTD.

More ways to stop snowballing at cards

EDITOR TEXTILE INDUSTRIES:

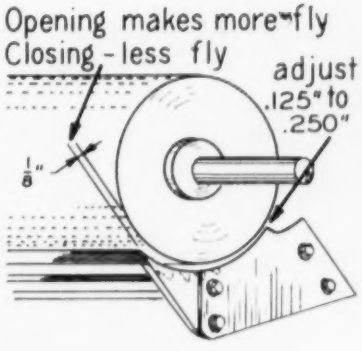
In the September 1956 issue of TEXTILE INDUSTRIES, p. 207, CONTRIBUTOR NO. 8866 commented on the causes of snowballing at the cards. I should like to add my opinions to his.

During my carding experience I have found that several things cause snowballs:

Uneven selvages on the picker laps—caused by lumps of cotton being caught on the edges of the picker screens—will cause the cotton to drag enough to pluck at the selvages and cause thin places.

Gummed selvage guides on the cards will cause the cotton to drag and damage the selvages. Gum on the edge of the feed plate will cause similar damage to the lap. These two conditions can easily be corrected by cleaning the gum from those two points.

Hooked licker-in wire will hold the staple under the bent teeth and release it in small bunches. Oil on the ends of the licker-in will, when present in excessive amounts, cause a similar action.

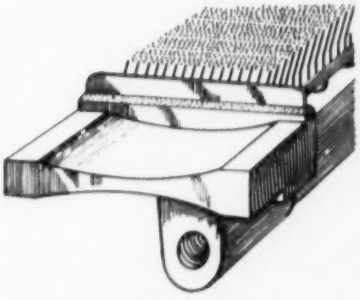


Spongy wire at the ends of the flats (caused by prolonged exposure to oil) will not stand upright under the grinding roll pressure. This weakness at the selvage destroys fiber control, and is similar to the condition of broken-down clothing caused at the selvages by overheated cylinder bearings which expand the cylinder until the cylinder wire faces the flats wire.

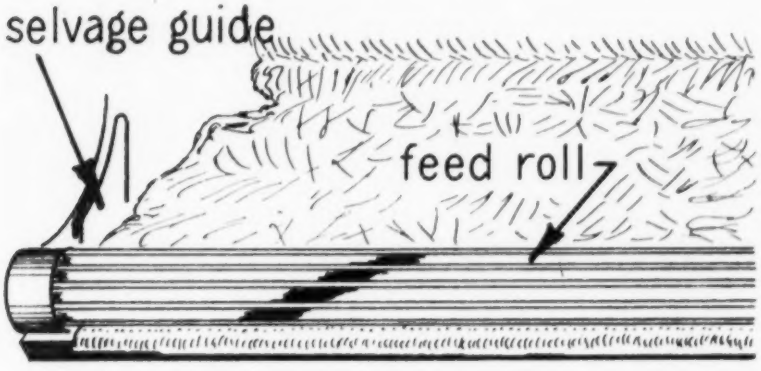
Dirty or gummed licker-in screens retard the stock as it passes through the licker-in and interrupts the flow.

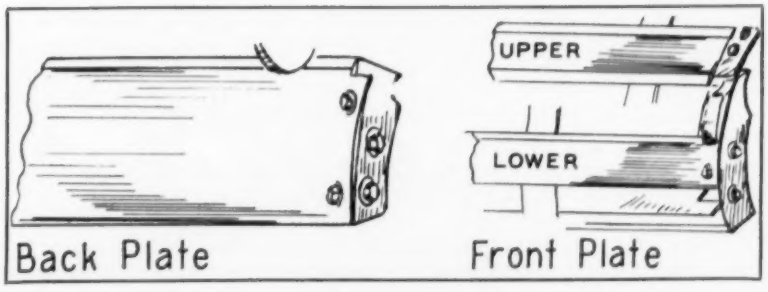
Gummed or dirty front and back plates will add their effects. The plates accumulate the natural gums of the cotton which passes over them. This must be removed before it becomes excessive.

Broken down wire foundation



will not support the grinding drum or traverse grinder. This is similar to the conditions described for the selvage wire earlier, and results in hooked wire. The bad foundation is unable to support the wire in proper array under the grinding pressure, but succeeds in holding the wire tight enough for the emery to hook the wire points. Naturally the hooked wire will not permit the stock to be transferred properly from the cylinder to the doffer.





Snowballing is not permanent on any of our cards, as there is always a prompt way to stop that condition by taking immediate corrective action. A clean, well-set card will not snowball.

CONTRIBUTOR NO. 8940

When operating temperatures and size stability are critical ... use

NEW TEN-O-FILM® STARCHES

Fast cooking, easy desizing make these new corn starches a favorite for synthetics and combed cottons

Ten-O-Film has the stability and ease of removal necessary for spun synthetic yarns and blends, for combed cotton yarns and for worsteds.

Despite prolonged heating and circulating you can count on Ten-O-Film to maintain its viscosity at slashing temperatures. And when temperatures fall, it will resist gelation, even far below normal operating levels. If necessary, these new starches can be used with excellent results when humidity conditions in the weave room are lower than normal.

Ten-O-Film cooks quickly. You can have a completely stable size in 30 minutes after it reaches the boil. This product provides high film strength, flexibility and stability in a complete range of fluidities.

Ask the man from Corn Products. Ready to assist you in any way, he has at his disposal the most complete laboratory and technical facilities in the industry. The man from Corn Products can also provide engineering service for the installation of bulk-handling equipment. Write or phone for information, there is no obligation.

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17 Battery Place, New York 4, N. Y.

Corn Products makes these famous starches for the textile industry—
Eagle • Foxhead • Globe • Hercules • Ten-O-Film • Globe Dextrines & Gums

Knitting Section

When a Change Becomes Necessary

TRANSGO

SPECIAL FORMULA

TRANSFER REMOVER

Regardless of the type of transfer—printed, embossed, heavily pigmented or so-called "permanent" type—TRANSGO will remove it safely, quickly and without effect to the material.

TRANSGO is also used in conjunction with scouring agents to remove excess knitting oils, particularly hard-to-remove mineral oil.

For complete details on TRANSGO, and for help with all your finishing problems, call or write Fancourt today.

See us at Booth 515-516
The Knitting Arts Show

W. F. FANCOURT CO.

519 SOUTH DELAWARE AVE.
PHILADELPHIA 47, PA.

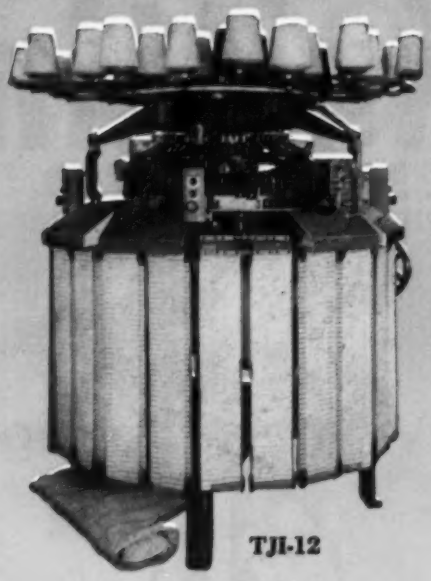
SOLVING FINISHING PROBLEMS SINCE 1904

SOUTHERN OFFICE—846 S. MAIN ST., BURLINGTON, N. C.
CANADIAN OFFICE—CHEMTEX PRODUCTS, LTD.
49 DENSLEY AVE., TORONTO 15, ONT.

STYLE CONSCIOUS COEDS . . .

demand the finest in sweaters . . . both in design and quality. Sweaters made on Wildman Jacquard's TJI-12 offer the ultimate in pattern range and choice of fabrics.

The TJI-12 is fully automatic — has 12 feeds with cuts up to 14 needles per inch with single needle control. Knit-on cuffs are a quality feature and pattern cards permit any design, regardless of width, length, or placements.



TJI-12

See this and other Wildman Jacquard knitting machines at the Knitting Arts Exhibition, April 29 - May 3, Atlantic City, N.J.

WILDMAN JACQUARD CO.
1210 Stanbridge Street, Norristown, Pennsylvania

. . . Leading manufacturers of quality knitting machinery

A subsidiary of Draper Corporation, Hopedale, Mass.

Atlantic City's famous boardwalk is lined with many attractive shops in which knitters may browse during their spare time.

Hosiery, outerwear, and underwear men will find lots of new equipment at the

BIG KNITTING SHOW

REPRESENTATIVE of the new machines and other time- and labor-saving devices which the thousands of knitting mill management and operating executives will have the opportunity to see when they go to the 43rd Knitting Arts Exhibition to be held in the Atlantic City, N. J., Auditorium April 29 through May 3 are the large number of items briefly described and/or pictured in the accompanying preview of the show (pp. 161-183).

Just turn the page and you will find beginning there an alphabetical list of the more than 240 suppliers to the knit goods manufacturing industry who will display the newest of their machines, equipment, supplies, and services at this big biennial trade show which is sponsored by the National Association of Hosiery Manufacturers, the National Knitted Outerwear Association, and the Underwear Institute.

Along with an exhibitor's name, home office address, and booth number are presented (1) what he plans to display, (2) the names of his representatives who will be in the booth, and (3) the hotel in which they will be registered — this is to assist you in locating supplier friends after show hours. It will also be easy for you to find them during show time if you will use the handy, simplified floor plan of the exhibition hall reproduced on page 173. To locate a particular supplier, simply refer to the alphabetical listing (pp. 161-183) and determine his booth number; then find that number on the floor plan. Exhibitor's names also appear in their assigned spaces on the floor plan.

Careful study by all of the entire preview is recommended because it will (1) enable those who are going to the show to plan their visit for the most efficient utilization of time while in Atlantic City, and (2) inform those who cannot attend of new developments so that they can make arrangements to get additional information on items in which they are interested.

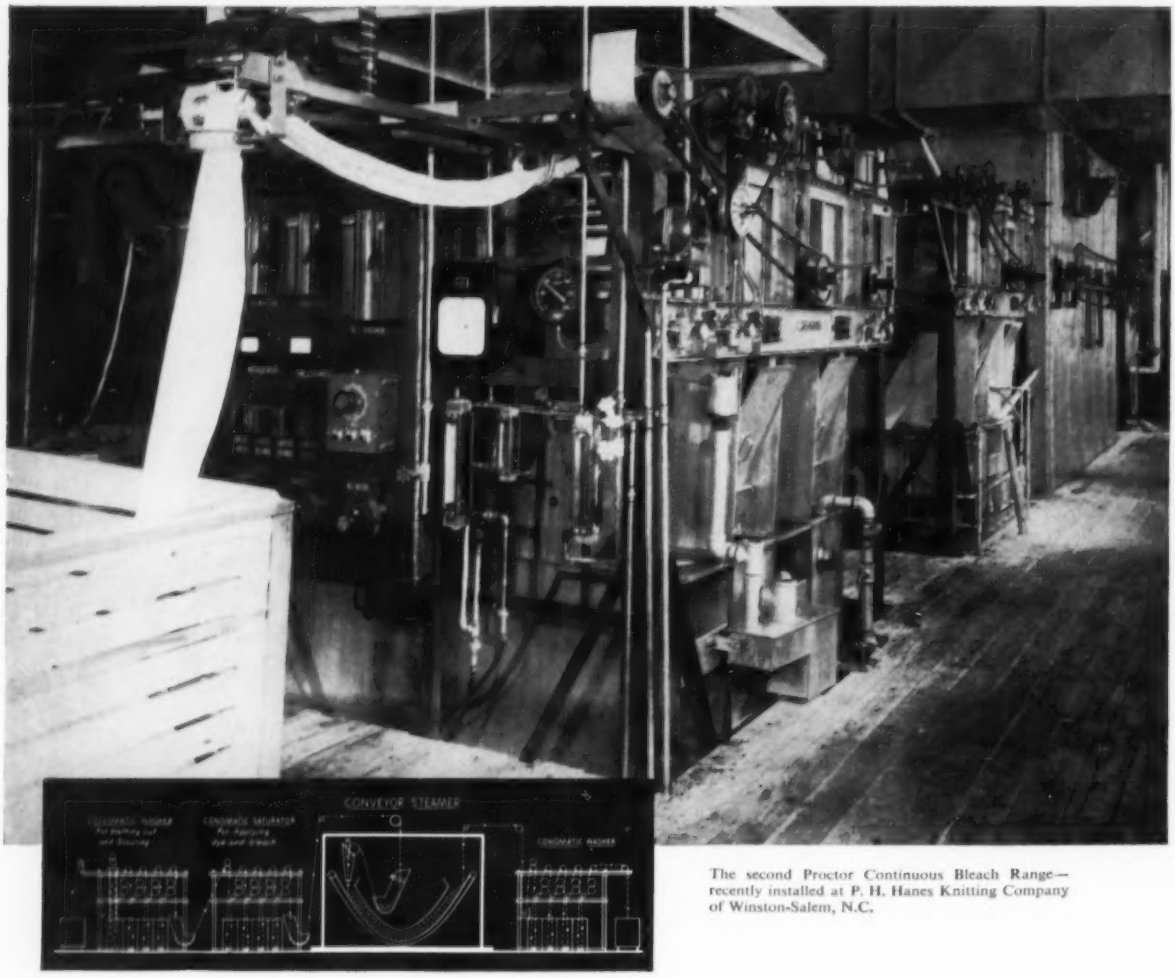
Several of the machines to be displayed for the first time are more completely described in the "New Equipment Parade" section of this issue (pp. 207-219). Announcements of other new developments which are commercially available will appear in the same section of subsequent issues, with the majority in the May, June, and July issues.

Show Hours. Doors to the exhibition hall will be opened at noon on Monday, April 29. Following is a list of the opening and closing hours to be observed on each of the five days:

Day	Show Opens	Show Closes
Mon.	Noon	6:00 P.M.
Tues.	Noon	10:00 P.M.
Wed.	10:00 A.M.	6:00 P.M.
Thurs.	10:00 A.M.	6:00 P.M.
Fri.	10:00 A.M.	1:00 P.M.

(Continued on page 187)

ANOTHER PROCTOR CONTINUOUS BLEACH RANGE AT WORK FOR P. H. HANES



The second Proctor Continuous Bleach Range—recently installed at P. H. Hanes Knitting Company of Winston-Salem, N.C.

This Proctor Continuous Bleach Range was put into operation at the P. H. Hanes Knitting Company of Winston-Salem, N.C., early this year. The Hanes management was so impressed by the outstanding performance of their first Proctor Range that they turned immediately to Proctor when additional capacity was needed.

Like so many other textile manufacturers, Hanes relies on the name Proctor, for it means dependability, economy and complete processing satisfaction. They know that Proctor equipment means more opportunity for profit.

- Re-runs eliminated
- Operating speeds up to 150 yards per minute
- Cost savings up to $11.00 per 1000 pounds bleached
- Amortized in 1½ years
- Eliminates sorting of batches for cutting room
- Insures cloth of excellent hand, whiteness, uniformity, shrinkage and absorbency
- Tremendous savings in water consumption
- Saves space—easily arranged to suit your plant.

Stop in and visit us at Booth #557 at the Knitting Arts Show at Atlantic City, N.J., April 29 to May 3.

Proctor **PROCTOR & SCHWARTZ, INC.**
Philadelphia 20, Pa.

Manufacturers of Textile Machinery and Industrial Drying Equipment

WHO'S SHOWING WHAT

at the 1957 Knitting Arts Exhibition

Aberfoyle Mfg. Co. **411**
123 South Broad St., Philadelphia 9, Pa.
Exhibiting: Yarns and knitgoods made from them, including hosiery, underwear, outerwear; woven goods.
Personnel in booth:
J. P. Holt, Pres.
J. S. Kenrick, Vice-Pres.
A. S. Wilson, Jr., Vice-Pres.
A. Huston, Jr., Sales Mgr.
E. J. Neal, Vice-Pres.
A. Hobbs, Gen. Mgr.
H. M. Detwiler
R. A. Field, Sales
T. S. Byrne, Sales
J. A. Holt, Sales
R. F. Morris, Sales
J. J. Neil, Sales
W. G. Vetterlein, Sales
David Gott, Sales
W. Crenshaw, Sales
J. Boger, Sales
J. Smith, Sales
R. Mishell, Sales
F. Etherington, Sales
Hotel: Claridge

Adelaide Mills **140**
Anniston, Ala.
Exhibiting: Natural and dyed cotton yarns; children's, men's, and ladies' sweaters and underwear; knitted fabrics.
Personnel in booth:
T. P. Roberts, Treas. & Mgr.
I. Brant, Sales Rep.
Hotel: Sheiburne

Ajusto Equipment Co. **148**
515 Conneaut St., Bowling Green, Ohio.
Exhibiting: The complete line of "Adjust-rite" chairs and stools featuring a quick adjusting mechanism which enables operative to adjust height of chair for proper posture in the working positions without the use of wrenches, bolts, screw drivers, etc.
Personnel in booth:
R. Dawson, Pres.
S. W. Heer, Service Mgr.
G. J. Bortner, Sales Mgr.

Allendale Co. **284**
212 Summer St., Boston, Mass.
(See Percy A. Legge)

The Allentown Bobbin Works, Inc. **150**
417-431 N. 14th St., Allentown, Pa.
Exhibiting: Bobbins and spools for throwing of fine denier yarns.
Personnel in booth:
H. W. Mack, Vice-Pres.
H. S. Barnes, Sec.-Treas.
Hotel: Sheiburne

American Aniline & Extract Co., Inc. **390**
Venango & F Sts., Philadelphia 34, Pa.
Exhibiting: Space for visitors.
Personnel in booth:
W. J. Duddy, Pres.
M. H. Silberman, Tech. Dir.
L. Kippax, Sales Mgr.
J. H. Jones, Sales Rep.
W. A. Moran, Sales Rep.
Hotel: Marlborough-Blenheim

American Blind Stitch Machine Corp. **600**
682 Broadway, New York, N. Y.

American Dyestuff Reporter (publication) **211**
44 E. 23rd St., New York, N. Y.

American & Efird Mills, Inc. **387**
Mount Holly, N. C.
Exhibiting: Sales Yarn Div. — carded, combed, Durene mercerized, and Orlon/cotton yarns; Spun Fibers Div.—wool chenille dress, all-wool jersey dress, and dress of 80/20 Orlon and wool jersey; Finished Fabrics Div.—cotton, Acrilan, Orlon, Orlon/wool, Acrilan/wool, and tricot; Ban-Lon Div.—fabrics made of Ban-Lon yarn; Thread Div.—industrial sewing thread.
Personnel in booth:
T. C. Smotherman, Vice-Pres. & Sales Mgr., Sales Yarn Div.
R. J. Freese
R. M. Salisbury
E. H. Timanus, Asst. Vice-Pres. Spun Fabrics Div.
W. E. James, Jr.
G. W. Pierce, Exec. Dir. Finished Fabrics Div.
R. M. Ingle, Asst. Sales Mgr.
W. H. Suttenfield, Vice-Pres. Ban-Lon Div.
C. F. McPhillips
R. F. Jessen, Plant Mgr.
G. W. Krentler, Pres. Thread Div.
H. R. Swagel
W. H. Hall
Hotel: Sheiburne

American Enka Corp. **163**
530 Fifth Ave., New York 36, N. Y.
Exhibiting: Enka rayon, nylon, "Jetspun" solution-dyed rayon, and high tenacity and regular rayon.
Personnel in booth:
K. N. Bacon, Adv. & Prom. Mgr.
M. B. Carr, Mgr. Textile Sales Dept.
C. L. Hayden, Asst. Mgr. Textile Dept.
A. B. Harris, Mgr. Nylon Dept.
Hotel: Ritz-Carlton

American Lava Corp. **28**
Manufacturers Rd., Chattanooga 5, Tenn.
Exhibiting: Complete line of AlSiMag homogenous ceramic thread guides for the knitting industry and all other phases of yarn processing; complete line of industrial tapes manufactured by Minnesota Mining & Mfg. Co., parent organization.
Personnel in booth:
R. B. Williams, Mgr. Titania Div.
J. B. Shacklett, Sales Mgr. Titania Div.
J. E. Spearman, Sales Mgr. Tex. Prod.
J. W. Crips, Sales Rep.
W. M. Crittenden, Sales Engr.
W. J. Geary, Sales Rep.
J. S. Gosnell, Sales Rep.
J. List, Sales Mgr. Ind. Trades Tape
M. Schantzen, Marketing Dept.

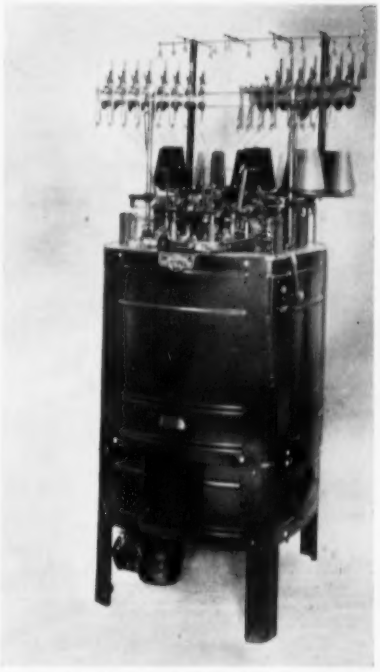
American Safety Table Co., Inc. **339**
224 Fifth Ave., New York, N. Y.
Exhibiting: A complete range of "Amco" stands and motors; the "Amco" collar, cuff, and flap forming and pressing machine.
Personnel in booth:
D. Frankel, Exec. Vice-Pres.
J. C. Frankel, Sales Dir.
R. Pettit
B. Greenawalt
Al Bolder
Sid Rotman

America's Textile Reporter (publication) **153**
286 Congress St., Boston, Mass.

American Thread Co., Inc. **403**
260 Broadway, New York, N. Y.

American Viscose Corp. **409**
350 Fifth Ave., New York 1, N. Y.
Exhibiting: Filatex yarns; Colorspun yarn and staple; new knitted fabrics.
Personnel in booth:
T. H. Andrews
D. A. Davis
J. C. Folsom
W. Hadfield
W. Hauer
F. F. Hilson
J. H. Kemp
H. C. Simpson
F. Soling
W. S. Sollenberger
L. L. Walmsley
I. Welch
R. Werntz
J. A. Woodruff
Hotel: Traymore

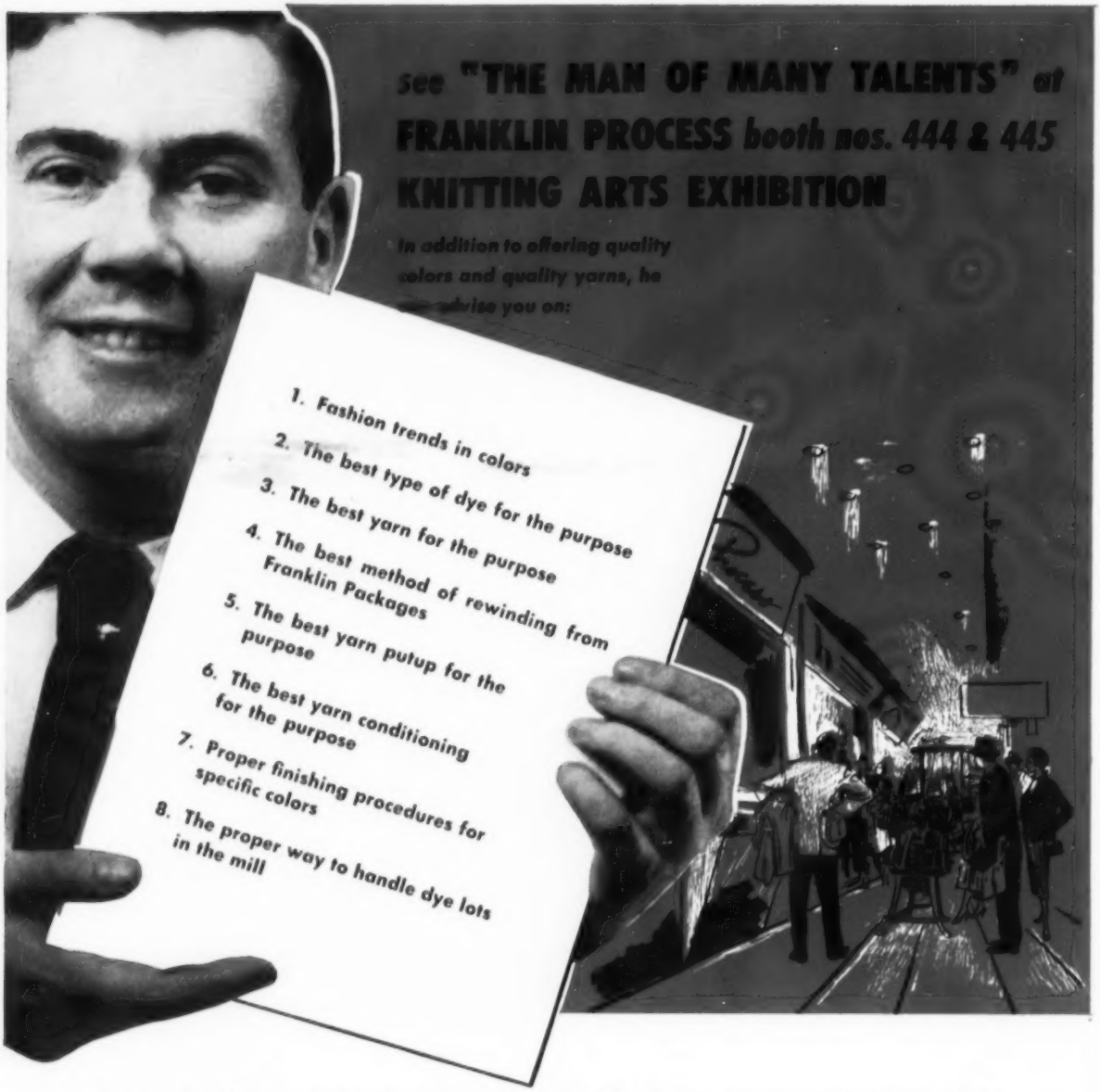
Amsco Packaging Machinery, Inc. **121**
31-31 48th Ave., Long Island City, N. Y.
Exhibiting: The "Amsco" Power Jaw Sealer-Labeler Machine which will seal bags of polyethylene, cellophane, Mylar, or Saran and simultaneously apply a header label over the bag top; an entirely new "Amsco" Rotary Bag Sealing Machine for the sealing of polyethylene bags—it makes an edge seal on the bag top, and excess film above the seal is cut away and automatically disposed of; a Corley Miller Kwik Warp Machine designed for wrapping of various textile items in polyethylene, Vitafilm, Clopane, cellophane, and other wrapping films; a new Simplex bag making machine, the Model 24-78, for fabrication of side-weld type polyethylene bags having a lip at the bag top which is ideal for packaging of textile items.
Personnel in booth:
E. E. Messmer, Pres.
J. Sylvester, Vice-Pres.
J. Keenan, Sec.
G. Cignoli
S. Watson
E. Watson
J. Kelly
G. Wiedersheim
W. Weber
F. Czifra
R. H. Freeman



Textile Machine Works' Model CK-A circular knitter for men's and boys' socks. For its features, turn to page 207.

Union Special's Model 41300X seamer for full-fashioned hosiery of all types.

Knitting Show Floor Plan on Page 173


See "THE MAN OF MANY TALENTS" at
FRANKLIN PROCESS booth nos. 444 & 445
KNITTING ARTS EXHIBITION
In addition to offering quality colors and quality yarns, he can advise you on:
1. Fashion trends in colors
2. The best type of dye for the purpose
3. The best yarn for the purpose
4. The best method of rewinding from Franklin Packages
5. The best yarn putup for the purpose
6. The best yarn conditioning for the purpose
7. Proper finishing procedures for specific colors
8. The proper way to handle dye lots in the mill

Frequently "the man of many talents" (your Franklin Process representative) can give you such information on the spot. But if not, he can call on the most completely equipped and the best staffed laboratory in the business for prompt, dependable answers.

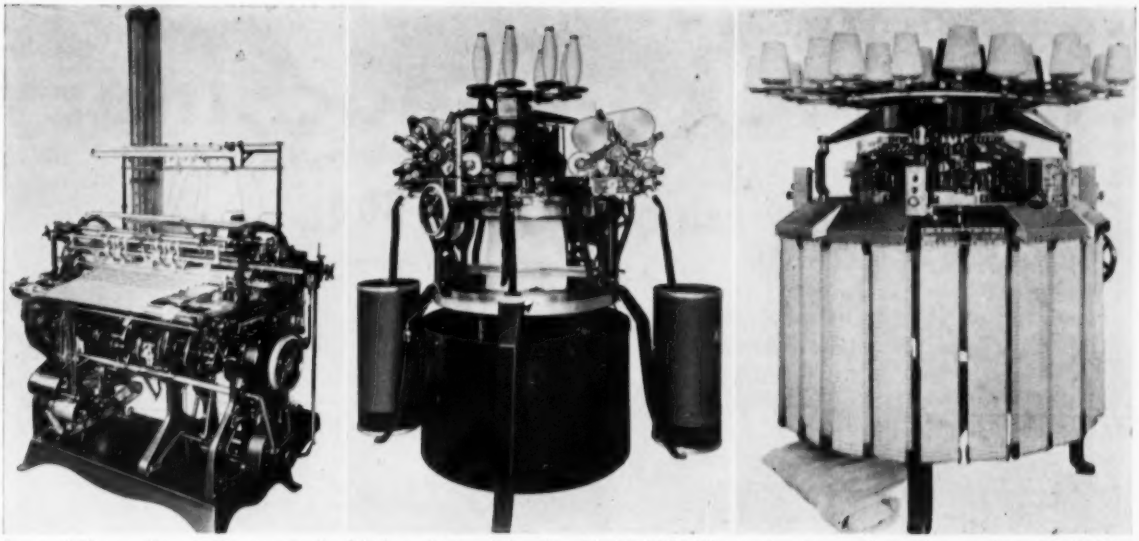
Be sure to make his acquaintance at the Knitting Arts Exhibition and to discuss your colored yarn problems with him. No obligations.

Franklin Process

Yarn Merchants and Largest Package Dyers in the World — Dyeing Exclusively on the Franklin Spring

Providence • Philadelphia • Greenville • Chattanooga
Fingerville, S. C.
New York Representatives — 40 Worth Street

X-ray view of Franklin Package — the "secret" of uniform shades. Don't say "package dyed". Say "Franklin Process Dyed".



Three of the machines to be seen in the Wildman-Jacquard booth are (left to right): The Style "TFS" 30" single-section full-fashioned sweater machine; the "FBW-6" pile fabric knitting machine; and the Model "TJI-12" circular Jacquard transfer machine for knitting sweater bodies and other outerwear with or without horizontal striping.

Argonne Worsted Co. **284**
212 Summer St., Boston, Mass.
(See Percy A. Legge)

Arrow Needle Co. **510**
Manchester, N. H.
(See Textile Machine Works)

Atlantic Rayon Corp. **327**
125 W. 41st St., New York 36, N. Y.
Exhibiting: Nylon yarns which have been dyed on packages as received from the producer; nylon yarns which have been dyed on packages after throwing; dyed rayon yarns in skein, cake, and tube put-ups; dyed stretch nylon yarns on cones and headless packages; various types of combination yarns, acetate and rayon, or nylon, and rayon that has been dyed various color combinations and plied and put on various types of packages and cones.
Personnel in booth:
H. Greene, Tech. Rep.
E. Kreuger, Tech. Rep.
D. Aibel, Tech. Rep.
(See also Malina Co.)

Joseph Bancroft & Sons Co. **155**
Wilmington, Del.

Banner Yarn & Dyeing Corp. **261**
488 Morgan Ave., Brooklyn, N. Y.

Barber-Colman Co. **213**
1300 Rock St., Rockford, Ill.
Personnel in booth:
L. L. Lideen — N. H. Alford
F. R. Lincoln — J. C. Ballard
F. D. Taylor — J. F. Carter

Bemis Bros. Bag Co. **142**
Terre Haute, Indiana
Exhibiting: A wide variety of polyethylene bags which provide better advertising and product display due to special bag construction features, such as gusset top and gusset bottom bags for bulky items; Flip-Close bags that allow removal, examination, reinsertion, and closure with a flip of the wrist; recessed, easy opening lip that speeds bag opening and increases production; fine weld seams allowing clear visibility and flat brand printing surface, etc.
Personnel in booth:
E. Taylor — E. Christenburg
H. O. Parker — E. Fuller
R. J. Potter — *Hotel*: Ambassador

The Bentley Knitting Machinery Organization, Inc. **55**
31 Canal St., Providence, R. I.
Exhibiting: Representative samples of knit-goods produced on all machines marketed by this firm, including hosiery of all types for infants, children, boys, men, misses, and women; outerwear and underwear, both circular and full-fashioned.

Sidney Bertner Co. **610**
704 Empire State Bldg., New York, N. Y.
Exhibiting: Yarns of all kinds.
Personnel in booth:
Sidney Bertner, Pres.
Bernard Bertner, Vice-Pres.

Boger & Crawford **530**
K & East Venango Sts., Philadelphia 34, Penna.
Exhibiting: Fabrics made of cotton, synthetics, and blends.
Personnel in booth:
Mrs. Fredericka Boger, Pres.
E. T. Boger, Vice-Pres.
A. H. J. Boger, Treas.
I. B. Wattis, Sales
W. R. Carothers, Sales
J. Carrasco, Export Sales
R. D. Seeback, Export Sales
M. R. Copeland, Sales
R. Lauderbach, Sales
H. Segal, Sales
S. C. King, Sales
J. L. Lainz, Export Sales
G. Solis, Export Sales
Hotel: Dennis

Bogoff Associates, Inc. **482**
350 Fifth Ave., New York, N. Y.

Botany Cottons, Inc. **145**
Gastonia, N. C.
(See Cotton Yarns, Inc.)

Brant Yarns, Inc. **140**
1123 Broadway, New York 10, N. Y.
(See Adelaide Mills)

Brinton Fabrics Machine Division **231**
350 Fifth Ave., New York, N. Y.
(See Scott & Williams, Inc.)

Bonis Brothers **600**
312 Seventh Ave., New York, N. Y.

Cannon Mills, Inc. **505**
70 Worth St., New York 13, N. Y.
Exhibiting: Combed and carded cotton yarns, natural and dyed; blended fiber yarns; fabrics made from these yarns.
Personnel in booth:
W. C. Cannon — C. V. Albright
H. E. Aken — J. C. Bartlett
J. C. Williams — Henry Crumbliss
T. R. Smith — F. A. Dusch, Jr.
W. F. Denning — J. J. Meyer
D. A. Long — J. F. Russell
W. H. Curlee — J. W. Turner
F. E. Byrne — *Hotel*: Haddon Hall

Carbide & Carbon Chemicals Co. **434**
Textile Fibers Dept.
30 East 42nd St., New York 17, N. Y.
Exhibiting: Dynel staple fiber in a variety of knit fabrics, including fur-like fabrics of 100% dynel, blends of dynel and Orlon in pile with dynel backing; cotton and dynel knit underwear and sleepwear, as well as sleepwear of 100% Type 63 dynel; knit industrial fabrics for overlays on glass-reinforced plastic laminates, and fabrics for other new uses.
Personnel in booth:
A. L. Snyder, Sales Mgr.
J. S. McGilly, Asst. Sales Mgr.
W. T. Burgin, Dist. Sales Mgr.
C. A. Strodle, Tech. Rep.
H. L. Carolan, Sales Prom. Mgr.

Caron Spinning Co. **422**
Rochelle, Ill.
Exhibitings Sweaters and other knitted fabrics from Orlon (seven different types of Orlon, along with some new blends with luxury fibers, such as blends with Angora and silk); the two "Carnloft" yarns for bulky knits and the Ivy League look; quality controlled Ban-Lon; four new Shetland type natural fiber yarns, as well as alpaca yarns and the blends using mohair, kid mohair, and cashmere.
Personnel in booth:
A. Amatruda, N. Y. Sales
R. J. Caron, Mgr. Robesonia Plant
J. B. Cameron, Pa. Sales Rep.
A. Cameron, III, Pa. Sales Rep.
B. Eipper, Sales Rep.
Hotel: Shelburne

Carrier Corp. **369**
300 S. Geddes St., Syracuse 1, N. Y.

Carwil Publishing Corp. **53**
1 W. 34th St., New York 1, N. Y.

Celanese Corp. of America **214**
180 Madison Ave., New York 16, N. Y.
Exhibiting: Variety of knitted fabrics; variety of garments made from knitted fabrics.
Personnel in booth:
G. Hein, N. Y. Dist. Sales Mgr.
E. Engel, Asst. Merch. Mgr. Knit Fabrics
W. O'Neil, Sales
H. Macauley, Sales
B. Kearney, Sales

Chandler Machine Co. **542**
West St., Ayer, Mass.
Exhibiting: Nylon pleating machine; one-pedal button sewer; swatch cutter for making fabric samples.
Personnel in booth:
Richard Maxant, Gen. Mgr.
Richard Shields, Sales Mgr.

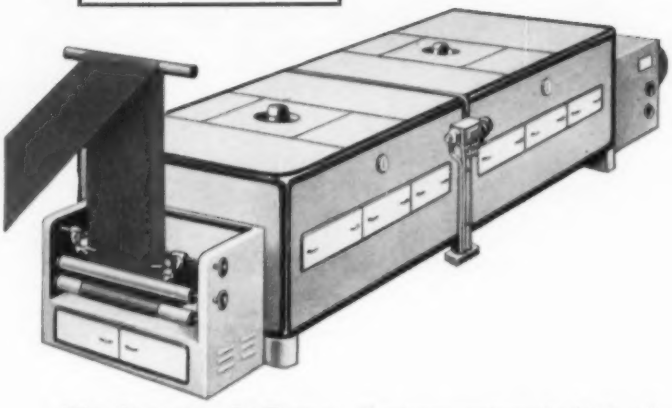
Knitting Show Floor Plan on Page 173

Shown For The First Time

Cosa's Textile Machinery

At The 43rd
KNITTING ARTS EXHIBITION **BOOTH 500**

In every one of Cosa's textile machines you'll find the most advanced design now available to the field. Stop in at Cosa's Booth 500 at the 43rd Knitting Arts Exhibition and see them. You'll be more than surprised at the outstanding improvements they offer you in production and quality—factors of utmost importance to today's textile industry.



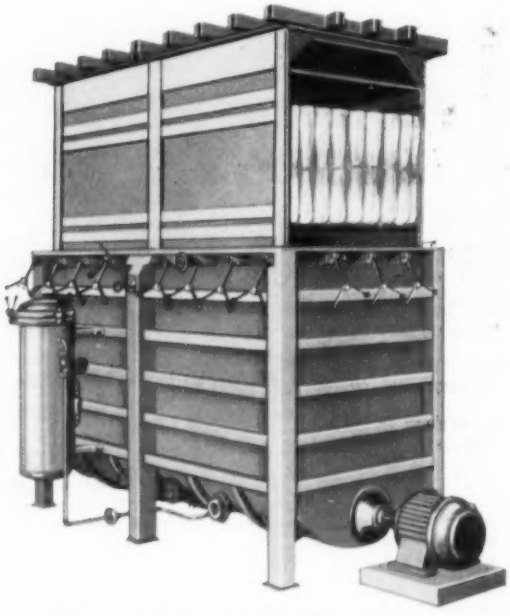
Vits Lay-on-air Dryer Features extremely high efficiency at speeds of 100 yards per minute or higher. Evaporates 90 lbs. of water per sq. yd. of dryer per hour.

Vits Overfeeding Head For all types of tenters—provides a *positive* overfeed of +40% to −5% with pin-on-pin action. Speeds up to 120 yards per minute.

OTHER COSA TEXTILE EQUIPMENT

- Mahlo Textometer—Moisture Controller
- Vits Drying Tenter
- Vollenweider HP1 Shearing Machine
- Projectina Optical Analyzer
- Saladin Flock Printing Machine

Write for Additional Information



Scholl Skein Dyer High temperature, high pressure unit provides completely uniform color impregnation. Sizes for 50 to 250 lb. dye lots.

COSA TEXTILE DIVISION

Lay-on-air & Tenter Dryers, Padders & Other Finishing Mach. · Spindles · Roller Bearing Inserts · Automatic Moisture Control & Others

COSA CORPORATION, 405 LEXINGTON AVENUE, NEW YORK 17, N. Y.

Chemspun Yarns Ltd. 218
Mooresville, N. C.

The Chemstrand Corp. 66
350 Fifth Ave., New York, N. Y.
Exhibiting: Products in which Acrilan acrylic fiber is utilized, including coatings, sweaters, sleepwear, knitted fleece and pile fabrics, carpets, and blankets; the Chemnyle process for dyeing nylon.
Personnel in booth:
E. A. O'Neal, Jr., Pres.
W. G. Luttge, Vice-Pres.
M. H. Morse, Nylon Sales Mgr.
R. E. Smith, Acrilan Sales Mgr.
B. F. Bertland, Dir. Adv., Merch. & Prom.
C. W. Carvin, Jr., Ass't. Nylon Sales Mgr.
D. W. Bedell, Ass't. Acrilan Sales Mgr.
C. W. Gayler, Dir. Tech. Sales.

Cloverleaf Freeland Corp. 37
Pine and Green Sts., Hazleton, Pa.
Exhibiting: Tie-Rod (all-Bakelite) bobbins—spinner and/or twister; Top-Flight (all-aluminum) spinner bobbins with spindle adaptors; Hi-Temp take-up shafts; a new Hi-Temp two-pound take-up shaft for stretch yarns featuring sturdier construction and also Hi-Temp ring twister and spinner bobbins.
Personnel in booth:
Travis Coxe, Sales Mgr.
W. H. Miller, Prod. Mgr.
G. B. Markle, Jr., Pres.
Hotel: Hotel Dennis

Cocker Machine & Foundry Co. 88
Chestnut St., Gastonia, N. C.
Exhibiting: A two-beam tricot warper, Model MH50, which will accommodate two 21" long beams, one 42" long beam, or one 50" long beam; it features very high operating speeds and automatic doffing equipment.
Personnel in booth:
J. C. Bodansky, Vice-Pres.
John Cocker, III, Pres.
T. F. Suggs, Chief Engr.
D. O. Shepard, Sales Engr.
Hotel: Ambassador

Comer-Avondale Mills, Inc. 375
Sylacauga, Ala.
Exhibiting: Cotton knitting yarns and garments made from these yarns; a new specialty yarn for outerwear, called Avonmari, and garments produced with it.
Personnel in booth:
B. C. Weber, Vice-Pres.
W. R. Austin, Vice-Pres.
P. R. Branton, Vice-Pres.
L. B. Allen, Vice-Pres.
G. Clark, Vice-Pres.
I. C. Schumacher, Vice-Pres.
S. E. Fulton, Vice-Pres.
W. Hardegree — H. Morrow
C. Crowther — R. Fulton
G. Bailey — J. Billow
Hotel: Traymore

Conapac Corp. 601
120 East 13th St., New York 3, N. Y.
Exhibiting: Roto-Wrap Model B special twin-track machine for the automatic unit packaging of knitgoods in heat-sealed, transparent packages; the Poly-Master, a machine for manufacturing side-weld lip pouches from polyethylene which may also be used for making bags from polyethylene tubing.
Personnel in booth:
J. H. Breznikl, Pres. Roto-Wrap Div.
R. H. Schnoor, Pres. Conapac
E. E. Miranda, Sales Mgr. Roto-Wrap
F. L. Walton, Bd. Chmn. Conapac
Hotel: Ritz-Carlton

Continental Can Co., Inc. 389
100 East 42nd St., New York 17, N. Y.
Exhibiting: "Conomet" metallic yarns.
Personnel in booth:
E. P. Dunham, Jr., Prod. Sales Mgr.
Helene G. Fontaine, Merch. Mgr. Metallic Yarns
Hotel: Shelburne

Cosa Corp. 499
405 Lexington Ave., New York 17, N. Y.
Exhibiting: The Mahlo Textometer which automatically controls moisture content of fabrics and warps being processed on dryers and slashers; the Vits single-pass, forced-convection "lay-on-air" dryer which provides maximum efficiency in the high speed drying of all fabrics; the Vits drying tenter which permits higher speeds and complete uniformity in the drying, finishing, curing, polymerizing, and direct dyeing of all textile fabrics; overfeeding heads that can be used as an accessory to any tenter; the Scholl skein dyeing machine which provides completely uniform color impregnation; the Vollenweider HP1 shearing machine for shearing knitted pile fabrics; the Projectina optical analyzer which permits fast, convenient measuring, counting, and comparing of yarns, fabrics, and fibers; the Saladin Flock Printing Machine for electrostatically applying flock to all types of textile fabrics and offering the advantages of increased production and finer quality of flocked material.
Personnel in booth:
G. Luy
K. Bahlo
L. Platnick

Cotton Yarns, Inc. 145
389 Fifth Ave., New York 16, N. Y.
Exhibiting: Combed and carded cotton yarns, natural and dyed, for knitting and weaving; blend yarns, including cotton/Orlon, cotton/nylon, cotton/acetate, and cotton/Acrilan; sewing thread yarns and finished units.
Personnel in booth:
C. A. Ross — H. O. Peuler
R. J. Gurney — A. Kushner
H. M. Kamins — M. Reibel

H. E. Crawford Co., Inc. 85
262 S. Main St., Kernersville, N. C.

Cross Cotton Mills Co. 543
Marion, N. C.
Exhibiting: Space for visitors.
Personnel in booth:
Eugene Cross, Jr., Pres.
O. R. Cross, Treas.
Hotel: Shelburne

Cummings Landau Laundry Machinery Co., Inc. 107
305 Ten Eyck St., Brooklyn 6, N. Y.
Exhibiting: A complete knitwear washing plant, including 36" x 54" stainless steel washer, 30" stainless steel extractor, and 36" x 30" steam heated rotary reversing drying tumbler. New feature of the C/L washers is the "Evertite" cylinder door lock which is a single handle cylinder door control that gives maximum sealing pressure when the cylinder door is closed and will not loosen under the heaviest pounding; opening and closing of doors can be rapidly accomplished.
Personnel in booth:
Eugene Cummings
David Green
Hotel: Traymore

Cutting Room Appliances Corp. 492
1134 Broadway, New York 10, N. Y.
Exhibiting: Electric knitgoods laying-up machine for tensionless spreading of tubular fabrics; "Electromatic" cloth spreader with positive drive; "Clip-Matic" thread trimmer; metal sectional cutting table; and a new manually-operated cloth spreading machine for tensionless spreading of open knit and woven fabrics.
Personnel in booth:
D. Grossberg, Sales Mgr.
B. Gottschalk, Sales Engr.
J. E. Fox, Sales Rep.
John Pransky, Sales Rep.

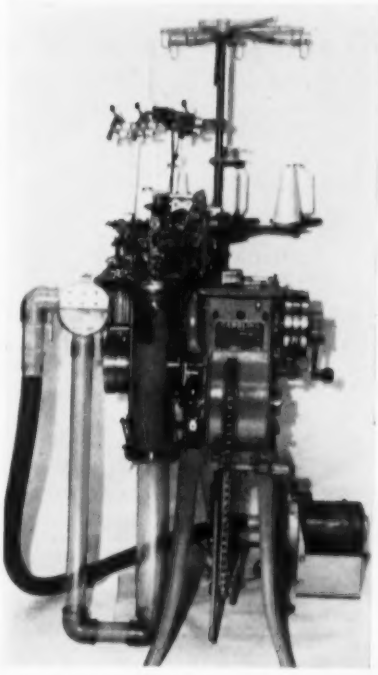
Daily News Record (publication) 139
7 E. 12th St., New York, N. Y.

Davison Publishing Co. 61
Ridgewood, N. J.

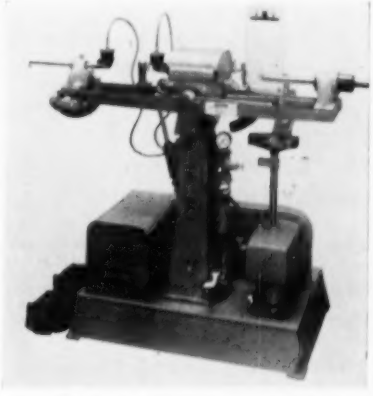
Deering Milliken Research Corp. 421
P. O. Box 27, Pendleton, S. C.

Delta Air Lines, Inc. 612
Atlanta Airport, Atlanta, Ga.

Dixie Mercerizing Co. 527
Chattanooga 1, Tenn.
Exhibiting: Fabrics, garments, and products made of Dixie yarns.
Personnel in booth:
J. B. Frierson, Pres.
A. K. Johnson, Vice-Pres.
C. R. Ewing, Exec. Vice-Pres.
P. D. Morrow, Sales Mgr.
W. W. Logan
R. L. Voight — A. Cameron
G. M. Porges — F. W. Franks
T. J. Tigh — G. W. Veness
L. K. Hill — W. A. Epper, Jr.
Miss Mabel Nolan — P. H. Ingligh
E. R. Kimball — M. M. Munsill
G. S. Bryan — W. C. Henderson
J. B. Cameron — W. D. Evans



Morris Speizman's Carolina K2F 400-needle ladies' hose knitter with vacuum attachment.



Scott IP-4 incline plane tensile tester.

The Dobeckmun Co. 120B
3301 Monroe St., Cleveland, Ohio

Draper Corp. 225
Hopedale, Mass.
Exhibiting: Space for visitors.
Personnel in booth:
T. H. West, Pres.
W. K. Child, Vice-Pres., Sales
C. P. Snider, Treas.
J. H. Grant, Adv. Mgr.
(See also Wildman-Jacquard Co. and Hemphill Co., wholly-owned subsidiaries.)

Dubied Machinery Co. 272
21-31 46th Ave., Long Island City 1, N. Y.

E. I. du Pont de Nemours & Co., Inc. 109
Textile Fibers Dept., Wilmington 98, Del.
Exhibiting: Du Pont's five apparel fibers—nylon, Orlon, Dacron, rayon, and acetate—in significant end products of the knitting industry, such as sweaters and other garments of whiter, more dyeable Orlon in bulked yarns, tow-dyed yarns, Jacquard

Knitting Show Floor Plan on Page 173

Nearly every competitive advantage starts with the machine

The "READING" CK-A Circular Knitting Machine

The "READING" Tricot Machine

The "READING 100" Full Fashioned Knitting Machine

The "READING" Full Fashioned Outerwear Machine

The "READING" Automatic Expanding Examining Form

Textile Spring-Beard Needles

Arrow Latch Needles

Whether your visit is purely social or whether you want to discuss some of our new developments in knitting, you will be sure of a hearty welcome at the Textile Booth at the Knitting Arts Exhibition. We are right inside the main entrance, as usual.

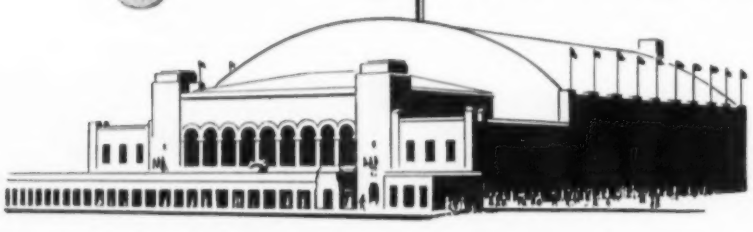
See our new READING CK-A Machine for circular knitting of men's fancy patterned hosiery.

•

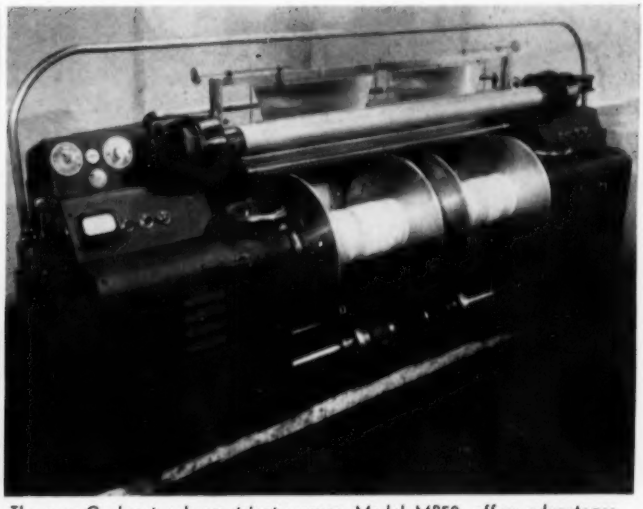
Before you go home from the Show, we hope you will plan to visit us at Reading where you can see all our machines operating under mill conditions.

•

TEXTILE MACHINE WORKS, READING, PENNA.



This "Wrapak" automatic diaper band packager for stretch socks will be featured by Western Printing Co.



The new Cocker two-beam tricot warper, Model MB50, offers advantages of very high operating speeds and automatic doffing.

knits, etc.; color-coordinated hosiery; tricot fabrics; jersey knits; blends of Orlon and Dacron; blends of Orlon and cotton, including brushed fabrics; knit fabrics of Dacron in blouses and dresses; circular knit girdles; garments of textured and stretch yarns.

Eastern Yarn Mills, Inc. **218**
1530 McDonald Ave., Brooklyn, N. Y.

Easthampton Rubber Thread Co. **90**
Easthampton, Mass.
(See United Elastic Corp.)

Eastman Chemical Products, Inc. **303**
Kingsport, Tenn.

John A. Eberly, Inc. **538**
Reading, Pa.
Exhibiting: Knitting machine needles, sinkers, sliders, guides, etc.; specialty items for maintenance and production for textile mills.
Personnel in booth:
V. L. Eshelman, Pres.
G. MacFadyen, 1st Vice-Pres.
A. L. Eshelman, 2nd Vice-Pres.
Hotel: Dennis

Edley Machine Co., Inc. **470**
1914 English St., High Point, N. C.
Exhibiting: The Model RSVP Pattern Mor-Pul knitting machine which produces Mor-Pul socks with a variety of patterns and colors, including everything from men's tennis socks to misses blue jean socks to boys' rib hosiery; the YMP conventional Mor-Pul machine; "Insertaform" devices for packaging hosiery on cardboards.
Personnel in booth:
Ed Blankstein, Pres.
O. R. York, Gen. Mgr.
Glenn Poole, Research Dir.
Victor Rich, Sales
Red Coleman, Sales
Barry Farber, Export Consultant

Emsig Manufacturing Co. **102**
225 W. 60th St., New York 23, N. Y.

Engineered Plastics, Inc. **63**
Gibsonville, N. C.
Exhibiting: Bobbins, spools, tubes, caps, and specialties; new bobbins, adapters, tubes, and plastic coatings will also be on display.
Personnel in booth:
D. M. Davidson, Jr., Pres.
C. H. Phillips
Elmo Jones
Hotel: Sheburne

Errich International **552**
5 E. 35th St., New York, N. Y.
Exhibiting: Several models of the "Speedy" Bag Packager, including those with adjustable air vents, accessible lint clean-out openings, internal grounding devices; equipment showing principle by which these machines operate.
Personnel in booth:
M. L. Ruderman, Pres.
H. Bitterman, Dist. Mgr.
J. Miller, Sales Engr.
D. Mitchell, Sales Engr.
O. Roth, Tech.
Hotel: Senator

Etherington Brothers **433**
1518 Walnut St., Philadelphia 2, Penna.
Exhibiting: Space for visitors.
Personnel in booth:
F. H. Etherington, Partner
B. H. Etherington, Jr., Partner
L. S. Ederer, Sales
H. W. Swift, Pres. Swift Spinning Mills Inc.
R. T. Davis, Vice-Pres. & Sales Mgr. Swift Spinning Mills, Inc.
J. R. Crawford, Vice-Pres. Rowan Cotton Mills Co.

Everett Sales & Equipment Corp. **449**
251 Third Ave., New York 10, N. Y.

Ewing-Thomas Corp. **114**
Rose & Walnut Sts., Chester, Pa.
Exhibiting: Combed and carded mercerized yarns for knitting and weaving—natural, dyed, bleached, gassed, Metro-Shade.
Personnel in booth:
J. L. Rankin, Pres.
J. W. Jester, Vice-Pres.
G. W. Fiss, III, Gen. Mgr.
R. E. Rankin
D. Thomas, II — G. E. White
J. F. Meschter — F. W. Crews

W. F. Fancourt Co. **515**
516 S. Delaware Ave., Philadelphia 47, Pa.
Exhibiting: Vibralon finishes, including Vibratol, Lanaseal, Nynseal, Reslon, Scourlon, Pentalon, Fantascour, Fancosol.
Personnel in booth:
J. Fancourt, Pres.
T. Lindley, Vice-Pres.
R. Rhodes, Tech. Advisor
W. Sawyer, Tech. Advisor
C. Wolff, Chemist

Ernest A. Feustel, Inc. **501**
842 Winston St., Greensboro, N. C.
Exhibiting: Dura safety tubes; yarn guides for seamless and full-fashioned machines; sinkers and dividers.
Personnel in booth:
E. A. Feustel, Pres.
F. C. Feustel, Sales
H. W. Fricke, Sales
Hotel: Claridge

The Fidelity Machine Co., Inc. **243**
3908 Frankford Ave., Philadelphia 24, Pa.
Exhibiting: A large variety of electronically controlled seamfree hosiery machines for making women's hosiery—eight will be in continuous operation; for the first time the Model "ATR" knitting machine which produces infants' and children's hosiery with an automatically transferred rib top incorporating the new 10-end yarn selector and knot tyer—this machine is available in cylinder sizes of 2¾" and up.
Personnel in booth:
L. Katz, Pres.
R. D. Faigenbaum, Vice-Pres.
L. Hill, Mgr. Export Dept.
P. Mahler, Mach. Design Dept.
T. Thore, Mach. Design Dept.
R. Peel, Mach. Design Dept.
C. S. Brannock, Sou. Sales Rep.

Firestone Industrial Products Co. **284**
212 Summer St., Boston, Mass.
(See Percy A. Legge)

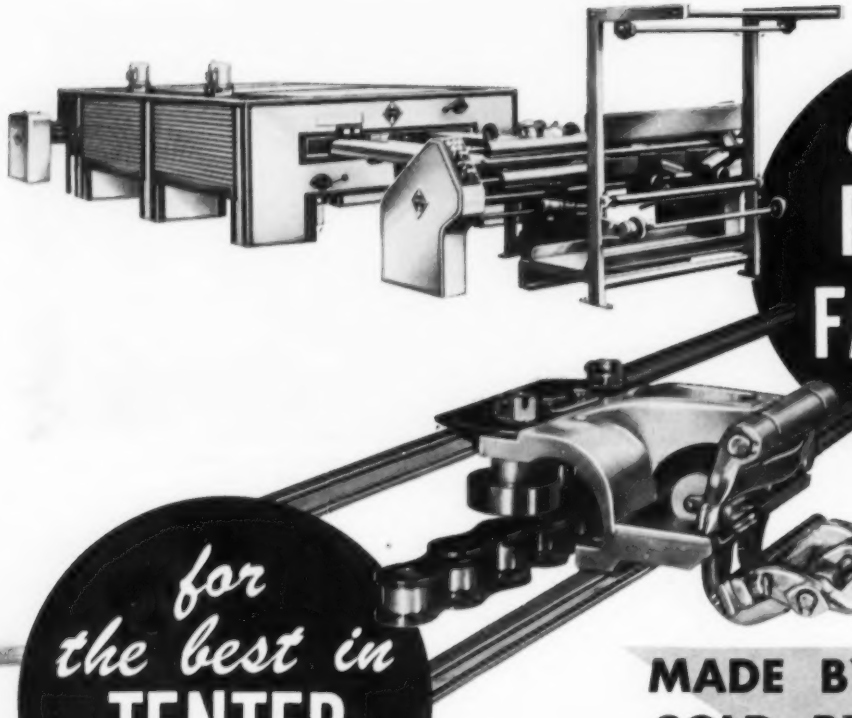
J. A. Firsching & Son, Inc. **282**
421 Broad St., Utica, N. Y.
Exhibiting: Semi-automatic bias collarette cutting and winding machine; combination strap cutting and winding machine; automatic cuff cutting and folding machine; automatic cloth lay-up machine.
Personnel in booth:
R. A. Firsching, Pres.

Fitchburg Spinners Sales Corp. **143**
1 Nockege St., Fitchburg, Mass.
Exhibiting: Space for visitors.

Fletcher Works, Inc. **191**
Philadelphia, Pa.
Exhibiting: Latest developments in throwing machinery and centrifugal extractors, including the new Master Duplex Doubler-Twister equipped with 6" diameter rings twisting heavy denier nylon onto five-pound capacity bobbins; the improved Speedex winder-redraw winding bottle bobbins and spinner bobbins at very high speed; the 30" Junior Extractor made with stainless steel curb.
Personnel in booth:
T. B. Baldridge, Jr., Mgr. Throwing Div.
H. J. Roessel, Sr., Tech. Serv. Throwing Div.
H. J. Roessel, Jr., Sales & Service Throwing Div.
F. S. Claghorn, Sales Mgr. Extractors
Harry B. Allison, Chief Engr. Extractors
F. W. Warrington, Sou. Rep.
Hotel: Shelburne

Foster Machine Co. **82**
Westfield, Mass.
Exhibiting: The Model 202 automatic cone winder.
Personnel in booth:
W. C. Chisholm, Pres. & Treas.
E. C. Connor, Vice-Pres.
H. W. Ball, Chief Engr.
P. H. Farmer, Asst. Sales Mgr.
E. P. Dodge, Sou. Sales Mgr.
C. B. Terry, Sales Dept.
H. E. Swift, Sales Dept.
J. B. Davenport, Sales Dept.
G. W. Malloy, Sales Dept.
C. A. Faunce, Sales Dept.
F. F. Stange, Engineering
C. P. Bullard, Engineering
Hotel: Dennis

Knitting Show Floor Plan on Page 173



look to
REINER-FAMATEX
for the best in
TENTER FRAMES

IF YOU WANT TO LEARN HOW TO GET BETTER DRYING AND TOP QUALITY PRODUCTION—OR IF YOU WANT TO DISCUSS ANY DRYING AND HEAT TREATMENT PROBLEMS, BE SURE TO SEE OUR SALES ENGINEER AT BOOTHS 69-73 AT THE KNITTING ARTS EXHIBITION, ATLANTIC CITY, N. J., APRIL 29-MAY 3.

MADE BY EXPERTS
SOLD BY EXPERTS
SERVICED BY EXPERTS

Note these Features:

- **Combined pin and clip chain link. (Special pin chain link for knitted fabrics.)**
- **Ball Bearings and graphite sliding surfaces eliminate friction and oiling problems.**
- **Temperatures up to 500° F.**
- **Exceptionally uniform jet air flow.**
- **Most effective for heat setting and drying of all kinds of knitted and woven fabrics.**
- **Efficient over-feeding and weft shrinking devices.**

NO OTHER TENTER LIKE IT!

Request complete details.

REINER-FAMATEX, INC.
550-64 GREGORY AVENUE, WEEHAWKEN, N. J.
Telephone UNion 7-0502

FAMATEX

Franklin Process Co. **444**
564 Eddy St., Providence, R. I.
Exhibiting: Orlon tow which has been dyed in the wound form on a specially designed core and then rewound onto a spool to provide increased production at the Turbo Stapler; package dyed Hi-Bulk Orlon yarns, use of which eliminates necessity for the knitter to carry a large colored yarn inventory; dyed yarns, including cotton, Orlon, Helanca, nylon, rayon, Dacron.
Personnel in booth:
W. F. Wolfe, Pres.
C. W. Dawson, Mgr. Providence
H. N. Graves, Sales Mgr., Providence
R. B. Lusignea, Sales Analyst
I. W. Gardner, Rep.
R. S. Allen, Rep.
M. E. Davis, Mgr. Philadelphia
C. E. McElwee, Rep.
L. Grindrod, Rep.
S. W. Cable, Mgr. New York
A. G. Dana, Rep.
R. F. Strahley, Mgr. Chattanooga
H. O. Fry, Sales Mgr. Chattanooga
R. C. McCarthy, Rep.
D. M. Robinson, Rep.
B. S. Phetteplace, Mgr. Greenville
J. R. Garner, Rep.
E. T. Wrenn, Rep.

Garment Finishing Equipment Corp. **133**
18 Brattle St., Cambridge, Mass.
Exhibiting: The new Paris Steam-Air Finisher for precision pressing of all sweaters, regardless of fiber, style, or size, all automatically.
Personnel in booth:
F. Renick, Pres.
R. S. Dickie, Jr., Vice-Pres.
K. G. Dunn, Sales Engr.
J. E. Lloyd, Sales Engr.
L. Judice, Factory Supt.

Geigy Dyestuffs **165**
89 Barclay St., New York, N. Y.

General Electric Co. **559**
Apparatus Sales Division
1 River Rd., Schenectady, N. Y.

Ginsberg Machine Co., Inc. **266**
224 Fifth Ave., New York, N. Y.
Exhibiting: Individual horizontal ladies' seamless hosiery "Trim-Master," "Trim Master" deluxe with double purpose head for excess tapes and straps as well as threads; half-hose "Trim-Master" with argyle splitting attachment; individual elastic top "Trim-Master"; "Tape-Master" for both full-fashioned and cut and sewn sweaters; "Sciss-O-Matic" electric scissors.
Personnel in booth:
Si Margolis
H. Ginsberg
C. Gerstein
H. Stout
Si Alexander
K. Diehm
Hotel: Shelburne

Globe Dye Works **377**
4500 Worth St., Philadelphia, Pa.
Exhibiting: Package-dyed cotton, worsted, zephyr, synthetic, and blend yarns and featuring package-dyed Turbo and high-bulk Orlon and Acrilan.
Personnel in booth:
H. T. Greenwood, Pres.
T. S. Greenwood, Sales Mgr.
F. V. Trant, Supt. Processing
W. A. Hilbert, Sales Rep.
W. B. Taylor, Sales Rep.
R. W. Foltz, Sales Rep.
Hotel: Dennis

Grove Nylon Co. **331**
150 E. Grove St., Scranton 10, Pa.
Exhibiting: Various types of yarns produced.
Personnel in booth:
W. L. Schautz, Partner
A. G. Schautz, Partner
W. T. Cheatham, Sales Rep.
H. C. James, Sales Rep.
W. C. Napier, Sales Rep.
D. M. Harshman, Sales Rep.
R. W. Yeabsley, Sales Rep.
R. F. Yeabsley, Sales Rep.
Dr. R. F. Stuewer, Chemist
J. Kalinowski, Tech.
Hotel: Dennis

H. C. Harding, Inc. **57**
2nd & Tilghman Sts., Philadelphia 22, Pa.
Exhibiting: "Staycoat" stainless needle oil; "Humdinger" needle polisher and preserver; 15 denier nylon lubricant; "Check No. 9" solvent and penetrant; "Quick" sinker and needle cleaner; "Sheer Joy" hand cream; "New Triune" trough solution; "Crystal" dry cleaning fluid.
Personnel in booth:
G. J. Reihl, Pres.
M. M. Wolf, Sales Rep.
Hotel: Marlborough Blenheim

Harriet-Henderson Cotton Mills **117**
Henderson, N. C.
Exhibiting: Space for visitors.
Personnel in booth:
M. Y. Cooper, Vice-Pres. & Treas.
T. H. Crudup, Jr., Asst. Sec.
P. H. Daiglish, Sales Rep.
D. O. Blevins, Sales Rep.
M. Munsill, Sales Rep.
W. C. Brown, Sales Rep.
A. G. Sewell, Sales Rep.
D. F. Swain, Sales Rep.
P. Sweetser, Sales Rep.
Hotel: Dennis

Hayes Industries, Inc. **611**
Jackson, Mich.
Exhibiting: 21" x 42" forged head tricot beam for nylon; and a new 30" tricot beam for rayon and nylon.
Personnel in booth:
G. Barrie, Sales Dept.
W. H. Maxson, Sales Dept.
R. D. Richards, Sales Dept.
W. Sharp, Eng. Dept.
J. Prins, Prod. Dept.
R. E. L. Holt, Sou. Rep.
J. P. Laird, East. Rep.
Hotel: Shelburne

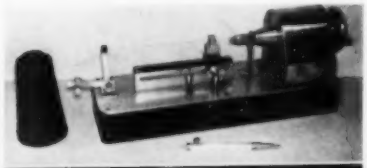
Hayssen Manufacturing Co. **555**
1305 St. Clair Ave., Sheboygan, Wis.
Exhibiting: The latest hosiery wrapping machine, Model 81LU, which will accommodate not only full-fashioned hosiery but men's and infants' hosiery as well. Machine is also adaptable to wrapping other products such as men's briefs, women's lingerie, handkerchiefs, undergarments of all types, and other soft goods.
Personnel in booth:
W. A. Hayssen, Pres.
J. C. Johnston, Gen. Mgr.
F. Koehn, Div. Sales Mgr.
R. P. Wilson, Div. Sales Mgr.
A. F. Perry, Jr., Div. Sales Mgr.
J. O. Willis, Div. Sales Mgr.
G. Pfromm, Sales Rep.
R. Wimmer, Sales Rep.
H. Hydusik, Sales Rep.
H. McAvoy, Sales Rep.
G. Clark, Service Engr.
Hotel: New Strand of Atlantic City

Heany Industrial Ceramic Corp. **19**
P. O. Box 530, New Haven, Conn.
Exhibiting: Heanium wear-resistant thread guides and tension devices.
Personnel in booth:
A. O. Pieper, Pres.
R. L. Carroll, Rep. Engr.
R. B. Bennett, Rep.
H. Boveri, Prod. Mgr.

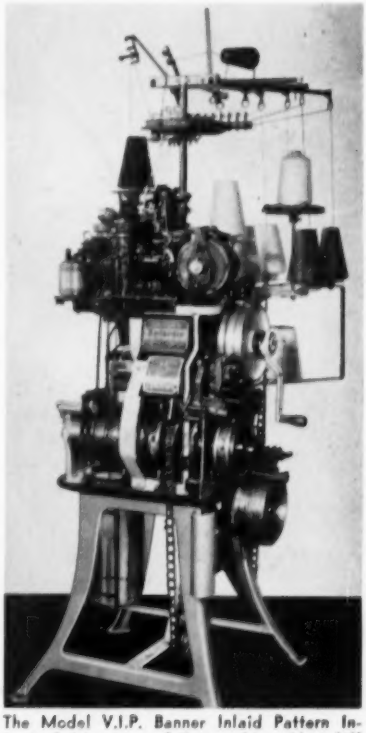
Hemphill Co. **250**
Pawtucket, R. I.
Exhibiting: The "VIP" (Vari-Inlaid-Pattern) sock knitting machine which automatically drops finished socks from the knitting cylinder with all connecting threads severed; the "ARA-F2," a recently developed fine-gauge anklet machine capable of producing an authentic 2 x 2 rib; the "SCOP-CC" which is an advanced-design automatic argyle hosiery machine capable of knitting crossed-color over-plaid designs bisecting solid color patterns; the "SCOP-KE," an automatic over-plaid machine capable of producing keen-edged, solid-color angyle patterns; comprehensive display of end products.
Personnel in booth:
B. R. Ebersman, Vice-Pres.
R. M. Sachar, Vice-Pres. N. Y. Sales
E. St. Pierre, Vice-Pres. Engr.
T. T. Toole, Dir. Sou. Sales
P. Howard, Supv. Sou. Office
R. Lamontagne, Overseas Sales & Service
D. Cunningham, Sales Rep.
L. St. Pierre, Exp. Engr.
C. Brown, Exp. Engr.
Miss Ethel Brown, Sales Rep.
(See also Wildman-Jacquard and Draper Corp.)

Henrici Laundry Machinery Co. **41**
10 Henrici St., Mattapan 20, Mass.

Herr Manufacturing Co., Inc. **38**
318 Franklin St., Buffalo 2, N. Y.
Exhibiting: Conical rings and flyers.
Personnel in booth:
H. B. Atwood, Pres.
W. Woodard, Tech. Engr.



A new single-end twist counter (upper photo) and pilling tester will be displayed by U. S. Testing.



The Model V.I.P. Banner Inlaid Pattern Intarsia knitter, one of the machines Hemphill will exhibit in Booth 250.

Herr Mfg. continued
R. M. Leach, Tech. Engr.
J. McLean, Engr.

Hess, Goldsmith & Co., Inc. **75**
Atwater Division
627 West Main St., Plymouth, Pa.
Exhibiting: Ban-Lon, Taslan, Fluflon, and other bulked and stretch type continuous filament yarns; fabrics and garments made from these yarns; warp spools for tricot and raschel knitting; Helanca SW yarns and garments.
Personnel in booth:
E. J. Schellenberg, Gen. Mgr.
E. J. Schellenberg, Jr., Asst. Gen. Mgr.
R. P. Schellenberg, Sales Mgr.
(Continued on page 171)

Scott and Williams Inc.
Invites you to see the
Newest Circular Knitting
Machines in operation.

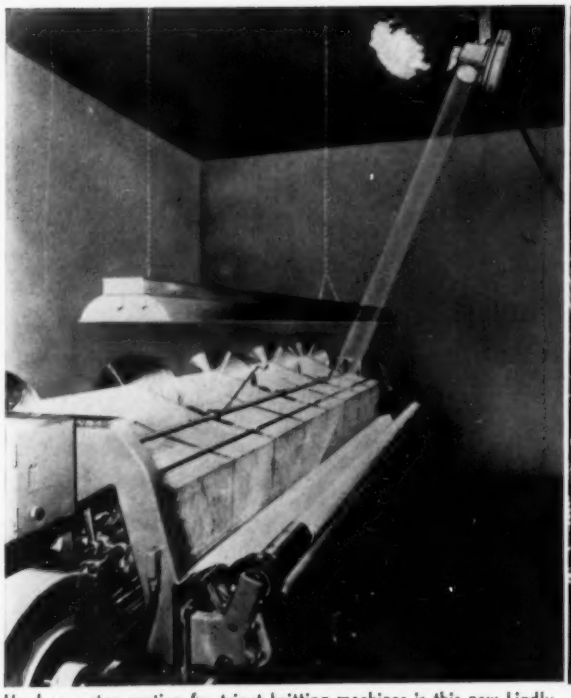
All the machines shown, will be available for your inspection, at the

KNITTING ARTS EXHIBITION

ATLANTIC CITY

April 29 through May 3

BOOTHS 231 to 242



Used as a stop motion for tricot knitting machines is this new Lindly automatic "Photo-Scanner." See it in Booth 50.

One man can efficiently operate two of these new full-fashioned hosiery knitting machines, according to Karl Lieberknecht.

Hess, Goldsmith continued
S. D. Counterman, Research Dir.
C. Jones, Pur. Agt.
W. O'Neill, Prod. Mgr.

Hoffner Rayon Co. **456**
Belgrade & Ontario Sts., Philadelphia 34, Pa.
Exhibiting: Filament and spun synthetic yarns, dyed and thrown.
Personnel in booth:
J. C. Hoffner, Pres.
J. G. Hoffner, Vice-Pres.
J. M. Hoffner, Sec.
C. P. Hoffner, Treas.
L. H. Hoffner
L. A. Oechslin, Supt.
C. R. Bryan, Supt.

Alfred Hofmann & Co. **341**
635 - 59th St., West New York, N. J.
Exhibiting: Projectina optical testing instrument for research and quality control of fabrics and yarns (microscopy, projection, instantaneous photographic recording); working model of Trockentechnik Brueckner tenter frame with new combination pin/clip chain; working models of equipment manufactured by Erhardt & Leimer, including fabric guiders, mechanical and photoelectric selvage feelers, electromagnetic feeding device for tenter frames, selvage uncurlers.
Personnel in booth:
C. A. Hepp, Pres.
P. Schoenster, Vice-Pres.
H. Peter, Sales Dept.
A. A. Brenner, Sales Dept.

Alfred Hofmann Needle Works, Inc. **355**
3710 Hudson Ave., Union City, N. J.
Exhibiting: Space for visitors.
Personnel in booth:
C. A. Hepp, Pres.
R. Eppler, Treas.
H. L. Wirth, Exec. Vice-Pres.
A. W. Bachman, Sales Rep.
G. C. Graves, Sales Rep.
C. B. Paulus, Sales Rep.
G. W. Veness, Sales Rep.
E. Groz, Partner, Groz-Beckert Nadelfabriken
Dr. C. Foehl, Gen. Mgr. Groz-Beckert Nadelfabriken
I. M. Haldane, Canadian Rep. Groz-Beckert Nadelfabriken
Hotel: Marlborough Blenheim

Hohenberg Co., Inc. **49**
215 Fourth Ave., New York, N. Y.
Exhibiting: Various yarns for the knitted outerwear and hosiery industries, including yarns spun on the woolen and worsted systems from natural and synthetic fibers and blends.
Personnel in booth:
B. L. Hohenberg, Sec.-Treas.
O. Hohenberg, Pres.
N. Miller, Sales
Hotel: Shelburne

Hooker & Sanders Corp. **395**
40 Worth St., New York 13, N. Y.
Personnel in booth:
J. P. Sanders, Pres.
M. E. Roper, Vice-Pres.
M. Gould, Sales Mgr.
Hotel: Ritz Carlton

Hosiery Industry Weekly (publication) **211**
44 E. 23rd St., New York, N. Y.

Hosiery Machinery Corp. of America **482**
350 Fifth Ave., New York, N. Y

Hosiery & Underwear Review (publication) **51**
1 W. 34th St., New York, N. Y.

Howes Publishing Co., Inc. **211**
44 E. 23rd St., New York, N. Y.

Indian Orchard Finishing Co. **116**
Indian Orchard, Mass.
Exhibiting: Dyed and finished knitted fabrics of acrylic, cotton, and wool yarns.
Personnel in booth:
L. Wess, Gen. Mgr.
C. Brennan, Sales Mgr.

The Industrial Dryer Corp. **151**
432 Fairfield Ave., Stamford, Conn.
Exhibiting: The "H-W" conditioner arranged to automatically pre-heat, condition, and exhaust or dry.
Personnel in booth:
P. H. Friend, Sou. Rep.
R. G. Leininger, Pa. & Mid-West Rep.
J. R. Tutt, New England Rep.
F. W. Caesar

International Silk Assn. (USA) Inc. **348**
489 Fifth Ave., New York, N. Y.
Exhibiting: Knitted fabrics and garments made of silk and silk blends.
Personnel in booth:
S. F. Brand, Rep.

Interstate Yarn Mills, Inc. **431**
5725 Hudson Blvd., North Bergen, N. J.
Exhibiting: Various types of novelty twist yarns, such as chenilles, ratine, loops, frills, boucle, nubs, etc., made from all of the natural and synthetic fibers; dyed rayon yarns, including space dyed.
Personnel in booth:
L. Ginsberg, Pres. J. Albert, Sales
A. Siegal, Sales Mgr. S. Kimmel, Sales
Hotel: Traymore

Loyal T. Ives Co., Inc. **344**
19 Water St., New Brunswick, N. J.
Exhibiting: Sinkers, jacks, spring beard needles, guides, and other operating parts used in the latest multiple-feed underwear, outerwear, and hosiery knitting machines.
Personnel in booth:
T. Whitlock, Pres.
T. Whitlock, Jr., Sec.
C. L. Lydecker, Sales Mgr.
Hotel: Dennis

J & H Label Processing Corp. **385**
230 West Passaic St., Maywood, N. J.
Exhibiting: Electro-Seal labeling process; Progressive electronic Electro-Sealer; pre-processed garment components.
Personnel in booth:
Clifford Jordan, Pres.
G. Cunningham, Sales Mgr.

Johnston Mills Co. **540**
P. O. Box 720, Charlotte 1, N. C.
Exhibiting: Sample cones of combed, carded, Durene (combed peeler mercerized/ yarns—natural, bleached, and dyed.
Personnel in booth:
D. R. Johnston, Pres.
D. R. Jonas, Vice-Pres.
R. M. Bechtel, Sales Rep.
F. N. Belk, Sales Rep.
W. J. Crummer, Sales Rep.
W. J. Yates, Sales Rep.
E. E. Jones, Jr., Sales Rep.
A. R. Newcombe, III, Sales Rep.
E. M. Peacock, Sales Rep.
W. B. Phelps, Jr., Sales Rep.
Hotel: Haddon Hall

Jordan Mills, Inc. **120**
Columbus, Georgia.
Exhibiting: Articles of wearing apparel made of Orlon and Orlon blends; also articles made of Acrilan and Acrilan blends.
Personnel in booth:
R. C. Jordan, Jr., Pres.
(Continued on page 172)

Jordan Mills continued
W. A. Livingston, Asst. Sales Mgr.
R. W. Boyd, Salesman
D. Robson, Salesman
Hotel: Traymore

K and J Trading Corp. **207**
147-32 Jamaica Ave., Jamaica, N. Y.

Kahn & Feldman, Inc. **419**
200 Madison Ave., New York 16, N. Y.

Kaumagraph Co. **549**
14th & Poplar Sts., Wilmington 99, Del.
Exhibiting: Decorative process transfers; lithographed and gravure printed wraps, bands, riders, tissues; Prestomark labels, and seals; a new Presto-Loc folding carton.
Personnel in booth:
P. T. Marston, Pres., *Hotel*: Dennis
B. P. Lindley, Vice-Pres., *Hotel*: Dennis
A. J. Geiringer, Salesman, *Hotel*: Claridge
D. V. Woods, Salesman, *Hotel*: Claridge
C. C. Cobb, Salesman, *Hotel*: Claridge
J. L. Reeves, Salesman, *Hotel*: Claridge
W. G. Stanton, Salesman, *Hotel*: Claridge
W. P. Raiford, Salesman, *Hotel*: Claridge
W. C. Marden, Salesman, *Hotel*: Claridge
J. A. Martin, Pres. Kaumagraph Ltd.
Hotel: Claridge

Keystone Dyeing Co. **504**
3215 Amber St., Philadelphia 34, Pa.
Exhibiting: Newest techniques for dyeing and finishing synthetic knitted piece goods and full-fashioned sweaters.
Personnel in booth:
Frank P. Murphy, Pres.
Henry Kline, Vice-Pres.

Kidde Manufacturing Co., Inc. **489**
35 Farrand St., Bloomfield, N. J.
Exhibiting: Knitting machines; compensating tensions for circular knitting; 21" tricot warper.
Personnel in booth:
W. J. Behr, Jr.
J. Fleming
H. W. Ruddick
K. Kaak
C. E. Glover
E. L. Herbert

A. Kimball Co. **399**
444 Fourth Ave., New York 16, N. Y.

Klauder-Weldon-Giles Machine Co. **54**
Adams Ave. & Leiper St., Philadelphia, Pa.

Joseph Klumpp Co. **503**
1617 Pennsylvania Blvd., Philadelphia 3, Pa.

The Knitter (publication) **514**
218 W. Moorehead St., Charlotte 1, N. C.

The Knitting Machine & Supply Co. **80**
250 W. Broadway, New York, N. Y.

Kruse & Slattery, Inc. **44**
1492 Haddon Ave., Camden 3, N. J.
Exhibiting: Full-fashioned sinker heads and supplies for them.
Personnel in booth:
J. J. Slattery, Jr.
J. T. Thomson

Laconia Cooper Co., Inc. **455**
Laconia, N. H.
Exhibiting: Latch needles; spring beard needles.
Personnel in booth:
H. Bacon — G. Dawson
C. E. Gamper — B. Londerbach
K. Lingley — G. O. Parsons
Hotel: Marlborough-Blenheim

La Mode Hosiery Corp. **439**
2004 Thomas St., Hollywood, Fla.
Exhibiting: Four Santoni seamless hosiery knitting machines—a 474-needle, 85 gauge, 3¾" cylinder, Model Ballet, for making sandal foot and demi toe stockings; a 400-needle, 80 gauge, 3¾" cylinder, Model "D/22" for producing microfilm or flat knit hose; a 400-needle, 80 gauge, 3¾" cylinder, Model "Two Feel," which makes stretch microfilm or flat knit hose; and a 400-needle, 80 gauge, 3¾" cylinder, Model "Gamboletto" for producing a microfilm or flat knit knee-high stocking, including the elastic top.
Personnel in booth:
J. Klein, Pres.
J. Siegel, Pres. Lambert Hosiery Corp.

La Mode Hosiery continued
P. G. Vincoli, Gen. Mgr. Santoni Co.
A. Vincoli, Chief Engr. Santoni Co.
E. Baldau, Chief Mech. Santoni Co.
S. Szulc, Export Mgr. Santoni Co.
Hotel: Claridge

Lassiter Corp. **357**
1143 E. Fourth St., Charlotte 4, N. C.
Exhibiting: Examples of packaging for hosiery, underwear, and other knitgoods, including flexible films, box wraps, folders, folding boxes, and tissues.
Personnel in booth:
J. V. Shea, Vice-Pres.
W. B. Wine, Vice-Pres.
H. C. Wall, Sec.
R. W. Plover — R. E. Cushing
M. R. Smilow — J. C. Tiddy
Hotel: Claridge

Latta, Currier Co., Inc. **74**
350 Fifth Ave., New York 1, N. Y.
Exhibiting: Yarns and products made from yarns spun by the six mills for whom this company is selling agent.
Personnel in booth:
A. W. Latta, Jr. — L. E. Rudisill
A. M. Currier — J. A. Moore
W. F. Durkin — E. M. Hunter, Jr.
W. L. Huggins, III — E. Malloy
D. S. La Far — M. Malloy

Laurel Soap Mfg. Co. **547**
Tioga, Thompson, & Almond Sts., Philadelphia, Pa.
Exhibiting: Lubricating and conditioning emulsions and winder trough solutions for cotton, rayon, wool, nylon, Orlon, and blends; coning oils for treating synthetic yarns, particularly the textured yarns such as Ban-Lon and Helanca and novelty yarns; sizes for hosiery yarns, hosiery boil-off compounds, softeners, and finishes, and a complete line of package dyeing assistants and finishes.
Personnel in booth:
C. E. Bertolet, Pres.
W. H. Bertolet, Jr., Treas.
A. H. Gaede
F. Jackson — B. N. Peterson
W. H. Bertolet, III — J. P. McGinty
T. C. Hoist — A. H. Rant

Leatex Chemical Co. **3**
2722 N. Hancock St., Philadelphia, Pa.

Percy A. Legge **284**
Philadelphia, Pa.
Exhibiting: Woolen and worsted yarns; synthetic yarns; bare cut and extruded rubber thread and "Contro" covered rubber thread.
Personnel in booth:
C. E. Neebl, Jr.
W. Smith — T. W. Adams
R. Rosenfeld — W. H. Brewer
R. Condon — L. Wagoner

Leon-Ferenbach, Inc. **381**
274 Madison Ave., New York 16, N. Y.
Exhibiting: Nylon, silk, and rayon yarns, including Leferon, Dyna-loft, Helanca, Agilon, and bulked yarn; also products made from these yarns, such as socks, stockings, underwear, sweaters, garments, and various fabrics and laces.
Personnel in booth:
C. Ferenbach, Pres.
G. Ferenbach, Sec.
R. S. Ferenbach, Sales
R. W. Boyd, Sales
C. W. Wolcott, Sales
R. L. Wise, Quality Control & Development
Hotel: Shelburne

Liberty Throwing Co., Inc. **262**
Kingston, Pa.

Karl Lieberknecht, Inc. **391**
P. O. Box 717, Reading, Pa.
Exhibiting: Pictures of the new Lieberknecht automatic non-stop full-fashioned hosiery knitting machine in operation—two of these machines can be operated by one knitter, with no loss of production efficiency; samples of carpeting made on the new Lieberknecht carpet knitting machine.
Personnel in booth:
L. C. Milliken, Pres.
C. A. Friedmann, Exec. Vice-Pres.
G. B. Groh
R. Thierfelder — H. Koehler
J. Renger — C. Bilder
E. Zesch — M. Radzanyl
Hotel: Claridge

Lindly & Co., Inc. **50**
248 Herrick Rd., Mineola, N. Y.
Exhibiting: The Lindly automatic yarn inspector; the new Lindly automatic "Photo-Scanner" which is used as a stop motion for tricot knitting machines.
Personnel in booth:
V. Lynch, Vice-Pres.
T. Fox, Project Engr.
C. Elgin, Coordinating Engr.
Hotel: Marlborough-Blenheim

Edward J. McBride Co., Inc. **29**
Cottman & Wissinoming Sts., Philadelphia, Pa.

Malina Co. **327**
125 West 41st St., New York 36, N. Y.
Exhibiting: Natural rayon, nylon, and acetate yarns in all forms and put-ups; large display of metallic yarns, both supported and unsupported, in cellophane, Butyrate, and made with Mylar.
Personnel in booth:
L. Malina, Exec.
F. H. Diamond, Exec.
F. Malina, Exec.
A. Malina, Exec.
J. J. Richrath, Sales Rep.
R. Westland, Sales Rep.
E. Taber, Sales Rep.
E. K. Woods, Sales Rep.
J. Gutcheon, Sales Rep.
H. Calder, Sales Rep.
N. Valman, Sales Rep.
B. Appelle, Sales Rep.
S. H. Eisenberg, Sales Rep.
J. Shapiro, Sales Rep.
H. Campbell, Sales Rep.
B. Meltzer, Sales Rep.
Hotel: Shelburne

FLOOR PLAN
1957 Knitting Show

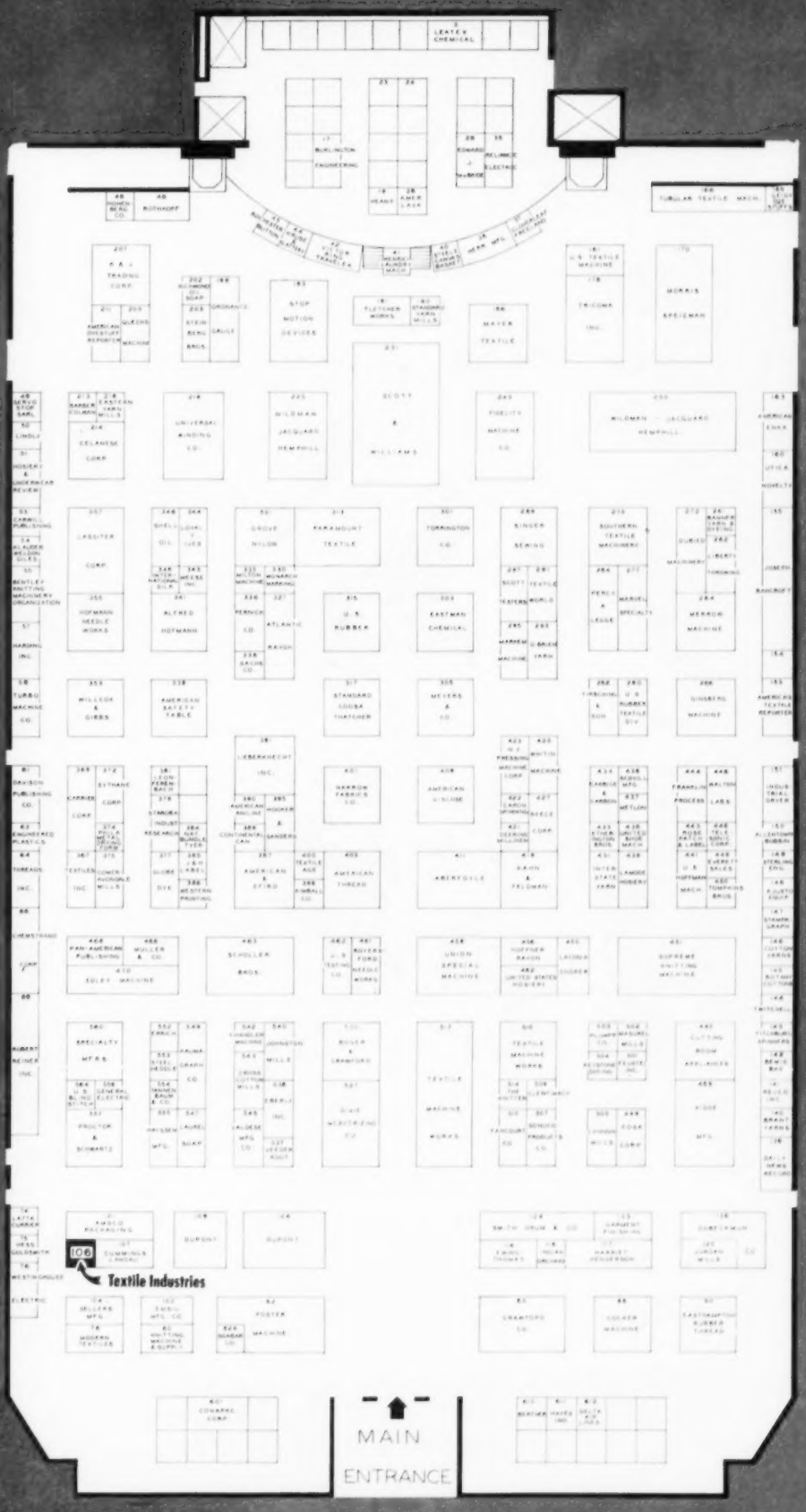
The Auditorium
Atlantic City, N. J.
April 29-May 3

Markem Machine Co. **295**
150 Congress St., Keene, N. H.
Exhibiting: Box marking machines, including a new high-speed box marker, label printing equipment for producing complete, low-cost fabric or paper labels or overprinting variables on woven labels; movies of Markem machines in action; display of printed samples.
Personnel in booth:
T. Huggins, Div. Sales Mgr.
D. Putnam, Pres.
A. McNaughton, Sales Engr.
C. Cheeseman, Sales Engr.

Stanford Marley Distributing Co., Inc. **164A**
505 Fifth Ave., New York 17, N. Y.
Exhibiting: "Suma-Velox" combination latching and pull thread mending machine for full-fashioned and seamless hosiery, grey or dyed; and shown for the first time will be a full line of Swiss non-drop Universo mending needles for machine and hand mending.
Personnel in booth:
Stanford Marley, Pres.

Marvel Specialty Co., Inc. **277**
Paducah, Ky.
Exhibiting: The Marvel mending machine with iron attachment; the Marvel-Meter for mechanically counting courses in knitted fabric; and Marvel-X, an automatic machine for inspecting all types of infants', children's, and men's hosiery.
Personnel in booth:
G. Harralson, Pres. — L. T. Ballard
G. T. Smith, Sec. — H. Hurley
C. G. Newton — C. McAnally
Hotel: Claridge

Masurel Mills, Inc. **502**
Samoset St., Woonsocket, R. I.
Exhibiting: Yarns spun on American system from natural and synthetic fibers, straight and blended; Turbo processed yarns natural and tow dyed; textured fila-


LEATEX CHEMICAL
MAIN ENTRANCE
Textile Industries

Knitting Arts Exhibition

BOOTHS 59 & 60

Stop in

for news on latest machine developments

Turbo

Sweaters of fabulous Turbo High-Bulk depend on the Turbo Stapler and Fiber Setter. Turbo High-Bulk is now produced by 50 leading spinners.

Fur-like high pile fabrics, like this acrylic-fiber stole, are beautifully finished with the Turbo Electro-Finisher, Wet Applicator, and Shearer.

Pile fabrics, like this alpaca and wool coat lining, have an entirely new look and hand after processing with the Turbo Electro-Finisher.

Anklets, socks and Bermudas are "set for life" on Turbo Machines. Single, double, and triple forms can be used interchangeably.

Synthetic yarns and fabrics are steam-set quickly and thoroughly in Turbo Machines. Automatic controls assure uniform, high quality results every time.

Conventional and stretch stockings are preboarded/finish boarded in a Turbo. For complete hosiery dyeing and finishing, use the Turbo Dyotherm.

Be sure to stop at Booths 59-60 for the latest on High-Bulk, High-Pile Fabrics and the precision, automatic, profitable setting of all synthetic fibers — news of the industry — and good fellowship.

TURBO MACHINE COMPANY

LANSDALE **PENNSYLVANIA**

A Quarter Century of Manufacturing Precision Machines for the Textile Industry

ment yarns; Ban-Lon; novelty twisted yarns; imported French yarns.
Personnel in booth:
R. E. Boyaval, Gen. Mgr.
B. G. Bouthilette, Sales Rep.
J. Smolin, Sales Rep.
J. Purdy, Sales Rep.
M. Messier, Sales Rep.
Hotel: Shelburne

Mayer Textile Machine Corp. **186**
5603 Park Ave., West New York, N. J.
Exhibiting: Super Rapid two- and three-bar tricot machine, 168" wide, 28 gauge, making tricot jersey (note—operating as a two-bar knitter, manufacturer guarantees speed of 800 cpm); a new Super Rapid four-bar tricot machine, 84" wide, 28 gauge, making tricot lace; a new Super Garant 12-bar Raschel knitter, 100" wide, 36 gauge, producing strip lace.
Personnel in booth:
Helmut Mittmann Nat Brody
Hotel: Shelburne

Meese, Inc. **343**
108 St. Michaels St., Madison, Ind.

The Merrow Machine Co. **264**
2805 Laurel St., Hartford 6, Conn.
Exhibiting: Class M overstitching machines for overseaming, overedging, hemming, shirring, and serging operations on outerwear, underwear, swimwear, etc.; decorative edge crochet and shell stitch machines; and for the first time the Style M-3DW-81 for intermittent shirring and overseaming and the Style M-2NR-1 for decorative handkerchief overedging.
Personnel in booth:
J. M. Washburn, Pres.
W. M. Baker, Treas.
G. B. Armstead, Sales Rep.
J. M. Washburn, Jr., Sales Rep.
Hotel: Shelburne

Metlon Corp. **437**
432 Fourth Ave., New York 16, N. Y.
Exhibiting: Metlon, non-tarnishing metallic yarn; Metlon with Mylar; combinations of both yarns with natural and synthetic fibers.
Personnel in booth:
A. C. Brucks, Pres.
T. Katoff, Sales Rep.
K. H. Inderfurth, Sales Rep.
W. Plowden, Sales Rep.
Hotel: Shelburne

Clarence L. Meyers & Co. **305**
2nd & Somerset Sts., Philadelphia 33, Pa.
Exhibiting: "Myon," a yarn specially constructed of selected soft cotton and having a zephyr-like hand; "Mylast" textured nylon or Dacron for use in hosiery, sweaters, upholstery fabrics, simulated fur, and carpets; "Nytrim" and "Datrim," special underwear trim yarns imparting added strength and abrasive resistance, in addition to improvement of appearance; silk and mercerized lisle combinations.
Personnel in booth:
C. L. Meyers C. E. Bender
M. M. Meyers E. W. Fowler
J. A. Meyers L. Eschelbach
G. E. Meyers H. W. Schrader
E. N. Meyers D. Strauss

Miller Wrapping & Sealing Machine Co. **121**
18 S. Clinton St., Chicago, Ill.
(See Amsco Packaging Machinery, Inc.)

Milton Machine Works, Inc. **335**
Milton, Pa.
Exhibiting: Aluminum alloy tricot beams equipped with forged heads 13¾", 21" and 30" in diameter.
Personnel in booth:
W. D. Leinbach, Pres.
J. S. Billig, Sales Mgr.
G. W. Blunt, Prod. Mgr.
C. J. Anchor, Chief Engr.
Hotel: Shelburne

Modern Textiles (publication) **78**
303 Fifth Ave., New York, N. Y.

Mohawk Button Co., Inc. **37A**
252 West 29th St., New York, N. Y.
Exhibiting: New improved Mohawk Merit automatic shank button feeder; complete line of shank, sew through buttons.
Personnel in booth:
Alfred Moses, Pres. M. Moses
Albert Moses L. Sulkes

The Monarch Marking System Co. **330**
216 S. Torrence St., Dayton 3, Ohio
Exhibiting: A complete line of marking machines and tickets, tags, and labels for mill and factory production, identification, pricketing, and pre-marking purposes.
Personnel in booth:
J. West, Mgr. Industrial Marking
C. Huckins, Jr.
A. Clark
R. Weisenfeld

L. P. Muller & Co. **466**
16th & Pennsylvania Ave., Philadelphia 3, Pa.
Exhibiting: Space for visitors.
Personnel in booth:
H. D. Muller, Partner
H. G. Harper, Partner
J. M. Matlack, Partner
J. T. Hawthorne, Partner
F. H. Ward, Partner
T. H. Nicholson, Partner
T. C. Brown, Sales Rep.
T. Dove, III, Sales Rep.
R. A. Eldridge, Sales Rep.
W. C. Muller, Sales Rep.
H. R. Peck, Sales Rep.
E. O. Penington, Sales Rep.
H. R. Penington, Sales Rep.
A. B. Reid, Sales Rep.
W. J. Scott, Sales Rep.
H. E. Protzmann, Sales Rep.
Hotel: Shelburne

The Narrow Fabric Co. **401**
P O Box 742, Reading, Pa.
Exhibiting: Elastic and trimmings suitable for the underwear, hosiery, and related trades.
Personnel in booth:
S. R. Fry, Pres.
J. W. Sweeney, Exec. Vice-Pres.
T. M. Fry, Asst. Sec.
G. Dudley, Jr., Asst. Treas.
F. S. Peirce, Gen. Sales Mgr.
S. S. MacCallum, Salesman
W. S. Towson, Salesman
K. R. Lieb, Salesman
C. E. Gray, Salesman
H. V. Vernet, Jr., Salesman
A. A. Willus, Salesman
O. A. Kemp, Salesman
C. H. James, Salesman
Hotel: Shelburne

National Bundle Tyer Co. **384**
Blissfield, Mich.

National Machinery Corp. **482**
350 Fifth Ave., New York, N. Y.

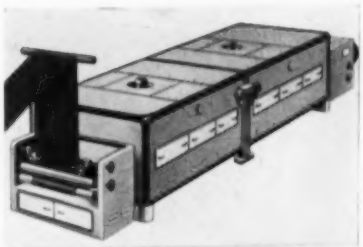
New York Pressing Machinery Corp. **423**
880 Broadway, New York 3, N. Y.
Exhibiting: An automatic steam blocker; an automatic steam pressing machine; an automatic utility press; and a new automatic steaming and drying table, a feature of which is the fact that the operating cycles can be set so that every operation will be identical and the results will be uniform.
Personnel in booth:
H. E. Cole, Gen. Sales Mgr.
M. Lachs, Salesman
S. Berl, Salesman
Hotel: Ambassador

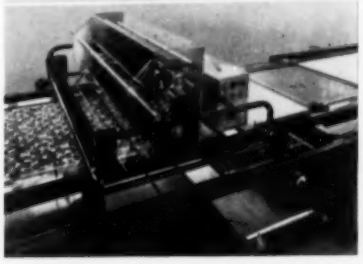
Richard C. O'Brien **293**
3701 N. Broad St., Philadelphia 40, Pa.
Exhibiting: Woolen, worsted, synthetic, and blended yarns; fabric and garments made from these yarns.
Personnel in booth:
R. C. O'Brien
A. J. Moher A. K. Moher
C. J. McAlaine H. M. Freeman, Jr.
W. C. Schmidt K. MacKay
E. L. Merritt, Jr. B. G. Collingwood
G. Richardson J. S. Persinger

The Ordnance Gauge Co. **199**
Amber & Hagert Sts., Philadelphia, Pa.

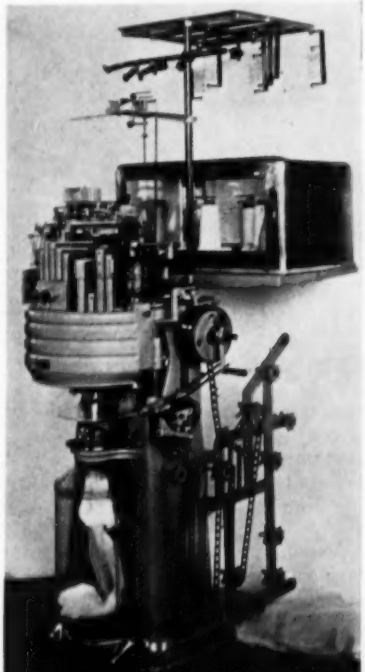
Panamerican Publishing Co., Inc. **468**
570 Seventh Ave., New York, N. Y.

Paramount Textile Machinery Co. **313**
131 South Wabash Ave., Chicago 3, Ill.
Exhibiting: Stainless steel and aluminum boarding and preboarding forms; automatic carriage and form actuator for horizontal retorts; and for the first time the "Paramark" Model 12 dry transfer applying machine and the "Convamatic" infrared preboarding and boarding machine.
Personnel in booth:
H. Pope, Jr., Pres.
W. Pope, Vice-Pres.
J. C. Fenley, Sales Mgr.
C. R. Scheuring, Gen. Mgr.
W. H. Albertson
L. J. Albertson





Two machines to be featured by Cosa Corp. are the Vits "lay-on-air" dryer (upper photo) and the Saladin flock printing machine.



Whitehead Patent Moretta Type MD400 ladies' seamless hosiery knitter which is to be shown by Staroba Industrial Research Co.

Paramount Textile continued
L. D. Ross H. N. Campbell
O. A. Siegel W. H. Brown
W. E. Pike Miss F. Snogren
Hotel: Ritz Carlton

Joseph Pernick Co., Inc. **336**
5419 Flushing Ave., Maspeth 78, N. Y.
Exhibiting: A measuring and examining machine for all types of knitgoods; a calender for finishing all types of knitgoods; gumming and slitting machine for tubular knitgoods—it gums, dries, slits, opens, and rolls-up knitgoods, producing a gummed edge to eliminate curling; and the new Aero-Dyne Dryer for drying tubular

Knitting Show Floor Plan on Page 173

REINER Offers Everything You Want IN A CREEL

REINER CREELS—

the most modern in use—have many features. Time-tested and proved in mill operation, they provide for savings in labor—producing better warps at higher speeds. They are readily adaptable to pirns of all sizes and all types of cones or cores.

Reiner magazine or single type creels give unmatched performance for any space or functional requirement. Truck creels for quick doffing are also available.

Reiner offers a full line of warpers and beamers.

All Reiner equipment is readily adaptable for use with units of other make.

From Cone to Knitted Fabric—From Creels to Warpers—From Knitting Machines to Tenter Frames—You Can Depend On Reiners For Superb Workmanship, Low-Cost, Profitable, Efficient, Trouble-Free Production!

REINER PATENTED TENSION CONTROLS for Quality Production

REINER'S PATENTED TRIPLEX TENSION provides for an endless variety of settings of delicate yarns at top speeds. A metal guard protects against ballooning yarn—eliminates breaking or nicking. Four different weights of tension washers meet all possible requirements. All posts are movable and the slots calibrated for easy setting. Alsimag or porcelain eyelets—tension posts available in Alsimag or satin-finish hardened chrome.

Other tension arrangements with single or double posts—tensions with loom type stop motions—tensions for crepe or special yarns—mercury—loom type—mechanical stop motions for any yarn or special requirements.

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Booth No.'s 69-73 inclusive,
KNITTING ARTS EXHIBITION, Atlantic City, N. J.
April 29-May 3

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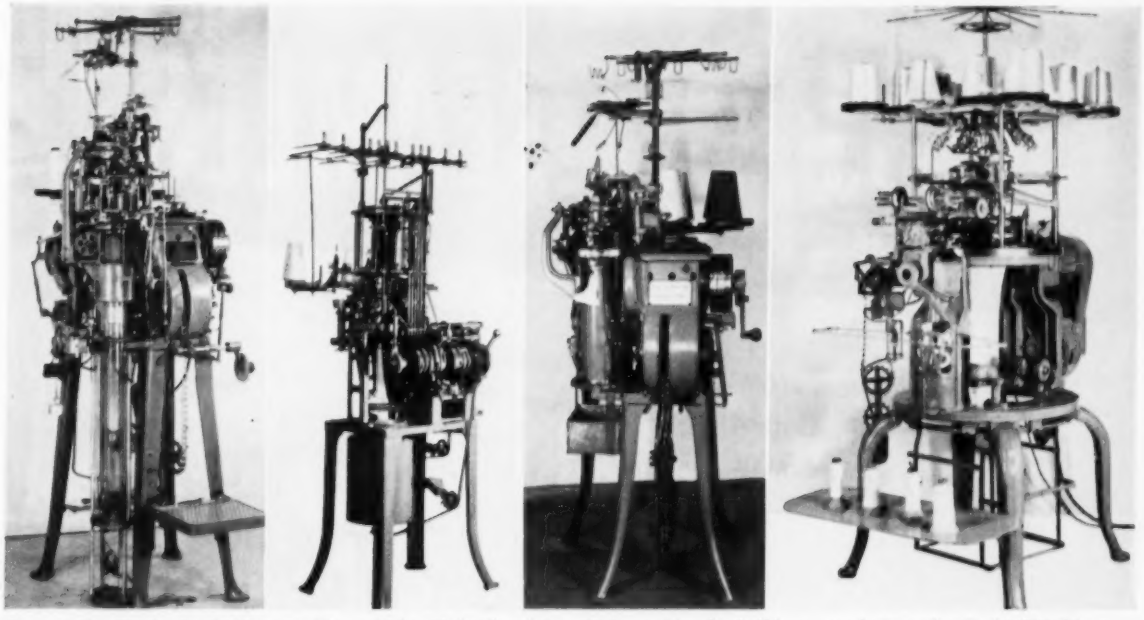
10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 **550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY**



Four of the 21 circular knitting machines which will be found in Scott & Williams' Booth 231. Left to right they are: Model KN with grab take-up for making ladies' seamless hose; a Komet Links & Links machine for half-hose manufacture; the Model ETR (Economy True Rib) machine; and the Universal Rubber Shaping Rib, Style DRC.

knitgoods made from all fibers.
Personnel in booth:
L. Pernick, Pres. — D. Haft
D. Pernick — M. Pernick

Philadelphia Metal Drying Form, Inc. **374**
Philadelphia 24, Pa.
Exhibiting: Hosiery finishing equipment, including steam-heated boarding forms, electrically-heated boarding forms; and preboarding equipment.
Personnel in booth:
B. B. Johnson, Pres.
A. H. Johnson, Sec. & Sales Mgr.
T. P. Flanagan, Vice-Pres. & Plant Supt.

Proctor & Schwartz, Inc. **557**
Seventh Street and Tabor Rd., Philadelphia 20, Pa.
Exhibiting: Photographs and models of equipment and sound-color motion pictures of Proctor equipment in actual mill operation. Featured will be the continuous bleach range, loop dryer, "Electrocolorset," and the Redman Process
Personnel in booth:
W. H. Poole
D. D. Cunningham — A. Bickel
C. W. Allen — F. Redman

Queens Machine Corp. **205**
280 Starr St., Brooklyn 37, N. Y.
Exhibiting: Latest fully automatic flat bed knitting machinery, both "V" bed and Links types; shown for the first time will be the Model "AB" and "ABD" full automatic flat "V" type knitting machine.
Personnel in booth:
M. Zimic, Pres.
J. Miskovsky, Mgr.
J. Mayer, Mech.

The Reece Corp. **427**
200 Prospect St., Waltham, Mass.
Exhibiting: Series 101 eyelet-end buttonhole machine, thread and cord trimming model; Series 2 straight buttonhole machine which produces straight double-barred buttonholes (known as "The Baby Reece"); Series 2 single thread tacker, label sewer, cut-after edge finishing machines.
Personnel in booth:
J. H. Pikul, V.P. & Gen. Sales Mgr.
O. F. Christiansen, Adv. & Sales Prom. Mgr.
F. O. Paul, Office Mgr.
G. E. Eberwine, Jr., Office Mgr.
B. Goldberg, Rep.
W. Lidstone, Rep.
A. Hart, Rep.
P. Hargadon, Rep.
R. Morici, Rep.

Robert Reiner, Inc. **69**
556 Gregory Ave., Weehawken, N. J.
Exhibiting: A model of the Famatex tenter frame; Schaffhau Sen rib machine; heavy duty sectional warper (HSW).
Personnel in booth:
K. T. Marx
W. Horn
J. Vollmann
W. Whary
J. Koegler
D. Scheube

Reliance Electric and Engineering Co. **35**
24701 Euclid Ave., Cleveland 17, Ohio
Exhibiting: The V-S Jr. variable speed electronic drive; corrosion-proof a-c motor; variable speed motor pulley; Vari-Speed Motodrive.
Personnel in booth:
P. Talbot
K. S. Lord — L. W. Kutz
A. W. Bridges — H. B. Moore
J. Mahoney — K. Miller
G. Miller — S. King
E. H. Sowers — M. Phelps
Hotel: Dennis

Revco, Inc. **141**
1900 Lyndale Ave. So., Minneapolis 5, Minn.
Exhibiting: Zero-Max infinitely variable speed reducers and controls, including the new motorized power packages which consist of a standard Zero-Max coupled to the new 48-frame motor size to give a complete variable speed package with a speed range of 0 to 400 rpm; the Model 54 Zero-Max which is designed to deliver a minimum of ½ hp; the redesigned Model 24 which delivers a maximum of ⅝ hp.
Personnel in booth:
R. A. Hersey, Sales Engr.
L. J. Cross, Sales Rep.
A. Benzemann, Sales Rep.
Hotel: Madison

Richmond Oil Soap & Chemical Co., Inc. **202**
1041 Frankford Ave., Philadelphia 25, Pa.
Exhibiting: Scouring, dyeing, and finishing materials for synthetic, cellulosic, and animal fibers for application on raw stock, yarn, and piece goods; trough solutions, needle and machine cleaners, lubricants for knitting of ladies' full-fashioned and seamless hosiery; lubricants and knitting aids for full-fashioned and circular sweaters; coning and yarn lubricants for the throwing mills. Shown for the first time will be Orlube No. 100 for knitting sweaters, Scour No. 188 for washing wool and wool blend sweaters and wool half-hose, Retarder No. 1524 for dyeing Orlon with basic dyestuffs, Rubberknit No. 1528 for lubrication of covered rubber and raw rubber thread, Coning Lubricant No. 353 for lubrication of Ban-Lon yarn, Coning Lubricant No. 1384 for lubrication of Fluflon and Superloft and seamless hosiery yarns, Roscour No. 1503 for one bath scouring and dyeing women's hosiery.
Personnel in booth:
W. Alkus, Pres.
M. W. Levi, Chem. Engr.
J. W. Schenkel, Chief Chemist
Hotel: Madison

Robison Rayon Co., Inc. **509**
29 River St., Pawtucket, R. I.
Exhibiting: Cake dyed rayon; package dyed boucle; chenille yarn for knitters; boucle yarn for knitters; novelty yarns for draperies, upholstery, and decorations for woolens and worsteds.
Personnel in booth:
R. G. Franks
H. S. Robison — F. A. Nordon
J. E. Murphy — C. N. Peterson
C. P. Doonan — S. M. Robison

Rochester Button Co. **45**
300 State St., Rochester 4, N. Y.
Exhibiting: The new "Speed Feed" shank button feeding machine which utilizes the vibratory motion of the sewing machine and eliminates need for an independent motor operated hopper feed; Techperl, Starphire, and Technold shank button lines.
Personnel in booth:
B. Popkin, Rep.
M. Shantz, Rep.
G. Scheibert, Engr.

Rose Patch & Label Co. **443**
609 Myrtle St., N. W., Grand Rapids, Mich.
Exhibiting: Fabric labels printed with vat dyes.
Personnel in booth:
W. J. Chaille, Vice-Pres.
H. J. Schultema, Sales Dept.
R. Hathaway, Sales Rep.
D. Kingsnorth, Sales Dept.
Hotel: Shelburne

Mac M. Rothkopf & Co., Inc. **46**
317 Bushwick Ave., Brooklyn 6, N. Y.
Exhibiting: Model S. T. single thread rotating dial sweater looper made by John W. Hepworth & Co., Inc.; Pike Flash-O-Lens; Knitmaster stitch gauge; Chatillon scales; Tensitron tension meter; McRoth slitter; and for the first time the Model M.J.L. Jacquard flat and border machines made by the Servo-Stop Machines of Roanne, France.
Personnel in booth:
M. M. Rothkopf, Pres.
G. A. Rothkopf, Sec.-Treas.
A. Rothkopf, Sales Mgr.
B. L. Rothkopf, Atty.

Royersford Needle Works, Inc. **461**
Royersford, Pa.
Exhibiting: Full-fashioned needles and

Knitting Show Floor Plan on Page 173

FIDELITY for SEAMLESS

Only Fidelity offers a complete line of machines incorporating *all* the outstanding developments in circular knit hosiery equipment design . . . *plus* exclusive Fidelity electronic control!

- **400 or 474 Needles**
- **Single or Double Feed**
- **Automatic Tension Device**
- **Plain, Mesh or S-T-R-E-T-C-H**
- **Individual Motor Drive with . . .**
- **Electronic Push Button Control**

You select the performance features *you* want . . . when you select a Fidelity. See the *complete* Fidelity line in operation at our showrooms . . . or write for stocking samples today.

Visit Booth 243-248 at the Knitting Arts Exhibition—See all the "Profit Making" Fidelity lines in operation

Designers and Builders of Intricate, Automatic Precision Machines

SINCE 1911

FIDELITY MACHINE COMPANY, INC.

3908-18 FRANKFORD AVENUE, PHILADELPHIA 24, PA.

EXPORT DEPT.: 11 BROADWAY, NEW YORK 4, N.Y. SOUTHERN REPRESENTATIVE: C. S. BRANNOCK, P.O. BOX 763, MT. AIRY, NORTH CAROLINA

needles for the sweater industry; sinkers; points; strap hooks; small pins; taper pins; small screw machine parts; surgical needles; and products of Bard Mfg. Co. Div., including machined parts, bushings, surface pins, dowel pins, special bolts, nuts, studs, ferrules.
Personnel in booth:
F. Heller
R. B. Schindler
R. Breidenbach

Sachs & Co. **338**
545 Eighth Ave., New York 18, N. Y.
Exhibiting: Novelty warp knit trimmings and fabrics.
Personnel in booth:
A. L. Miller, Gen. Mgr.
I. H. Mur, Sales Mgr.
Hotel: Shelburne

Saquoit Silk Co., Inc. **382**
302 Fig St., Scranton, Pa.

Schoffer Bros., Inc. **463**
Collins & Westmoreland Sts., Philadelphia 34, Pa.
Exhibiting: Dura Beau and Lanolized finishes for conventional and stretch stockings and knitted fabrics.
Personnel in booth:
E. A. Atkinson, Salesman
J. F. Noble, Salesman
J. O. Sweitzer, Salesman
L. M. Boyd, Salesman
C. H. Schuettler, Salesman
W. R. Sargent, Salesman
W. S. Truette, Salesman
E. J. Fitzgerald, Jr., Salesman
D. E. Robertson, Salesman
A. T. Glenn, Salesman

Scott Testers, Inc. **297**
Providence, R. I.
Exhibiting: The IP-4 incline-plane tensile tester with several types of clamp equipment, including the ASTM-approved clamps for hosiery testing and the new clamp recently approved for stretch and recovery testing of elastic fabrics and tapes; the Scott-Clemson Flat Bundle Fiber Tester; the twist counter complete with singles yarn twist examiner; the Model X-5, an inexpensive tensile tester for yarn and thread.

Scott & Williams, Inc. **231**
350 Fifth Ave., New York 1, N. Y.
Exhibiting: 21 circular knitting machines incorporating recently developed attachments and improved mechanical features for the production of hosiery, underwear, foundation garments, swimwear, sweaters, toques, and fabrics, together with a complete line of samples which can be produced on this equipment. Included will be the following: Six KN Seam-Free Nylon machines featuring the automatic grab weight take-up mechanism, a two feed attachment for knitting stretch yarns, a new length control device to assure knitting of uniform lengths, 10" bolster plates which make it possible to knit extra long or opera length hose, and a new delayed looper loose course attachment; two ETR (Economy True Rib) machines with a new rib interlace rubber laying attachment for laying a few courses of rubber in the welt and rib and a redesigned cushion sole attachment; one new ETR type rib cuff anklet machine with a redesigned mechanism for knitting a short welt with mercerized yarns and without a tab; a new high production 2¾" 140-needle 70 gauge Modern S&W Komet Machine equipped with a new improved reverse welt picot edge attachment; two Modern S&W Komet Links & Links machines equipped with the newly developed "Most-in-One" attachment which enables the standard Komet Links & Links machine to produce with a minimum of machine adjustment various rib hose in attractive combinations of ribs or the usual Links & Links patterned knitting, single or double feed or two Links & Links patterns in the stocking; a children's Komet Links & Links machine with new improved mechanism with greatly increased patterned scope, for making fancy Jacquard type patterns in the rib cuff; a 3½" 200-needle ES II machine designed for making all types of boys' and men's sock socks with color-in color true-wrap embroidery designs, combined with open mesh and solid color float patterning; Multifeed rib cuff interlock, Style MFRC sweater machine or interlock fabric machine; Model "Moderna," style R-8TWY jersey fabric machine; Model "Jacloc," Style PR-19 which produces innumerable fabric constructions in two or three colored Jacquard designs as well as grenadine and blister and combinations thereof; Universal rubber shaping rib, Style URC; multiple feed rib body, Style RC; Model Mercedes, Style RMS; Model Toque, Style TWS; Rib Ilet; Model Multiplex, Style RMRB.
Personnel in booth:
B. J. Faucette, Vice-Pres., Sales
W. O. McMillan, Vice-Pres., Engineering
H. G. Kellett, Asst. Vice-Pres., Sales
F. H. Hallenbeck, Dir. Sou. Sales
J. S. Hubbard, Div. Mgr.
A. W. Nealley, Div. Mgr.
J. G. Schmidt, Export Sales Mgr.
W. E. Chaput, Vice-Pres. S&W Co. of Mexico
W. D. Ide, Gen. Mgr., Brinton Fabrics Machine Div.
D. B. Brinton, Sales Mgr., Brinton Fabrics Machine Div.
R. W. Bennett, Salesman
P. P. Chaput, Salesman
J. R. Seymour, Salesman
W. V. Shenk, Salesman
S. P. Sayewich, Sales Engineering
F. W. Smith
F. W. Wakefield, Knitting Engr.
J. Woodburn, Serv. Engr.
D. MacIntyre, Serv. Engr.
F. C. Summerlin, Serv. Engr.
R. Poire, Serv. Engr.
L. C. Evans, Serv. Engr.
G. Sinclair, Serv. Engr.
T. Shastany, Serv. Engr.
L. Wilkie, Serv. Engr.
M. Felkner, Serv. Engr.
H. Tate, Serv. Engr.

Scoville Manufacturing Co. **436**
99 Mill St., Waterbury 20, Conn.
Exhibiting: "Gripper" snap fasteners.
Personnel in booth:

J. P. McDonnell	J. McAteer
E. F. Dillon	C. Poulsen
E. D. Janes	W. R. Spearrin
F. T. Lord, Jr.	H. D. Ward
E. F. Anderson	A. J. Lees
E. R. Duchesne	D. W. Copeland
P. E. Fenton	R. W. Hall

Sellers Manufacturing Co. **104**
Saxapahaw, N. C.

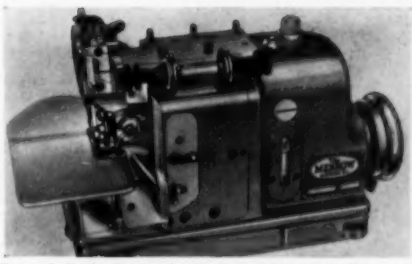
Servo-Stop **48**
55-57 Rue Bravard, Roanne (Loire), France
Exhibiting: Jacquard strapping machines for plain and relief knitting and for the making of tubular strappings; hand knitting machines.
Personnel in booth:
Robert Steiger, Mgr.

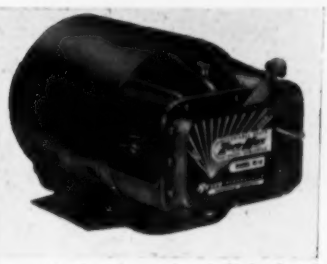
Shell Oil Co. **346**
50 W 50th St., New York, N. Y.
Exhibiting: Needle oils; knitting machine bearing oil; Darina grease.
Personnel in booth:
E. J. Colerick, Staff Engr.
W. H. Niedermeier, Div. Lubricants Mgr.
C. H. Mead, Jr., Dist. Mgr.
E. B. Arey, Jr., Sales Supv.
R. B. Repenning, Staff Engr.
Hotel: Traymore

Simplex Packaging Machinery, Inc. **121**
534 23rd Ave., Oakland, Calif.
(See Amsco Packaging Machinery, Inc.)

Singer Sewing Machine Co. **289**
149 Broadway, New York, N. Y.
Exhibiting: The Model 246-14 overedging machine, featuring a gathering feed; the Model 246-20 overedging machine which produces a special four-thread overedging stitch called the "dual stitch," the Model 400W31 lockstitch machine which is particularly suited to make flatter seams on "stretchy" knit fabrics; the Model 167W100 lockstitch machine capable of sewing two parallel rows of identical zigzag stitching in a single operation; the 269W26 tacking machine which makes a 28-stitch bar tack on lingerie, shirts, and sportswear; the 251-2 lockstitch machine.
Personnel in booth:

E. L. Ching	
J. E. Wertz	R. Criqui
W. Ketcham	J. Crossin
C. H. Leidig	A. Shenusky
P. R. Mohney	J. Santella
C. A. Stevens	Mrs. A. Pailey
L. R. Peak	Miss E. Bobonis





One of the high speed sewing machines which may be seen in the Merrow booth (left photo) and a new motorized variable speed power package to be displayed by Revco, Inc.

Smith, Drum & Company **129**
432 W. Allegheny Ave., Philadelphia 33, Pa.
Exhibiting: High temperature package dyeing machine; package yarn carrier with miscellaneous packages; laboratory model package dyeing machine; paddle dyeing machine for knitgoods processing; rotary type dyeing machine for hosiery; skein dyeing machine for high-bulk yarns and others.
Personnel in booth:
R. N. Smith, Pres.
A. Bagian, Vice-Pres.
A. P. March, Sales
W. A. Fuchsgranz, Sales

Soabar Co. **82A**
5815 Erdrick St., Philadelphia, Pa.

Sonoco Products Company **507**
Hartsville, S. C.
Exhibiting: Paper cones, tubes, spools, cores; plastic spools and rings; plastic and fiber spools and pirns; moulded fiber cheese cores and slip sleeves; cork cots and cork covered cones; synthetic rubber cots and roll covering.
Personnel in booth:
C. H. Campbell, Vice-Pres., Sales
C. W. White, Dir. of Sales
H. M. Adams, Salesman
C. L. Burnham, Salesman
B. H. Biggs, Salesman
W. M. Carpenter, Salesman
E. J. Cotter, Salesman
W. J. Durkin, Salesman
O. D. Duckett, Salesman
O. F. Fayne, Salesman
W. R. Gray, Salesman
C. Harper, Salesman
R. B. Henderson, Salesman
J. W. Hillsgrove, Salesman
G. K. Lewis, Div. Sales Mgr.
W. R. Pencock, Salesman
P. F. Williams, Salesman
J. A. Reagan, Jr., Adv. Mgr.

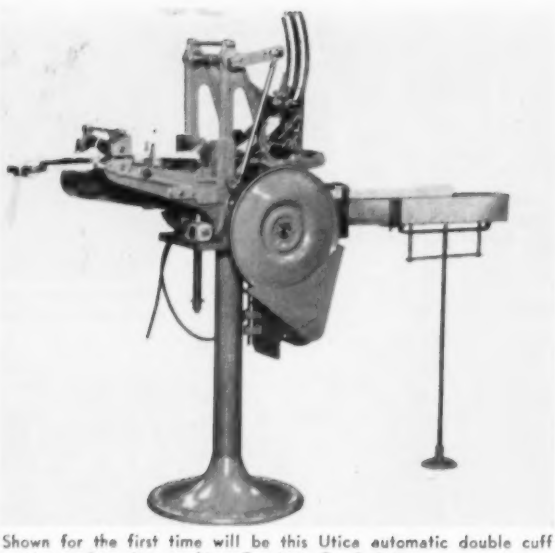
Southern Textile Machinery Company **275**
Paducah, Ky.
Exhibiting: Models 4000, 5000, and 6000 "Soteo" inspection machines for ladies full-fashioned and seamless hosiery; Model "P" loopers for outerwear featuring a new yarn tensioning device; looper lights, tables, stands, and other looping accessories.
Personnel in booth:
T. A. Paxton, Pres.
R. N. Parkin, Sales & Service Mgr.
B. Bryan, Inspection Mch. Sales
R. Shelton, Insp. Mch. & Looper Sales
A. George, Looper Sales
Hotel: Shelburne

Southern Textile News (publication) **211A**
Johnston Building, Charlotte, N. C.

Specialty Manufacturers and Sales Co. **560**
P O Box 235, Acworth, Ga.
Exhibiting: The "Inspectomatic" hosiery inspection form, turner, and stacker which records production in units of one dozen pairs and featuring several new attachments; for the first time an automatic cuffer which does single or double cuffing of children's and misses' and Morpul anklets; and also the Model H820 boarding ma-

Knitting Show Floor Plan on Page 173

One attraction of the Tubular Textile Machinery Co. display will be this electronic framer and streamer for outerwear and underwear.



Shown for the first time will be this Utica automatic double cuff cutting and turning machine. See it in Booth 160.

chine manufactured by Heliot of Troyes, France, and featuring new production methods.
Personnel in booth:
J. Kienel
T. Parry
H. May
J. W. Glaze, Jr., International Textile Machine Co.

Morris Speizman Co., Inc. **170**
508 W. 5th St., Charlotte, N. C.
Exhibiting: The Bowman Model "B" automatic transfer applying machine; the "Somco" pre- and post-boarder (formerly known as the "Sarco"); and the Carolina K2F 400-needle ladies' hose knitter.
Personnel in booth:
M. Speizman, Pres.
T. Valenstein, Vice-Pres.
J. H. Barnes, Sales
M. P. DeLeo, Export Mgr.
Hotel: Claridge

Stampagraph Co., Inc. **147**
79 Alexander Ave., New York 54, N. Y.
Exhibiting: Hot iron transfers in one-two-, and three-color combinations for hosiery, underwear, and outerwear; embossed seals and labels on foil or paper, gummed or ungummed, and pressure sensitive.
Personnel in booth:
G. Chadwick, Pres.
G. H. Chadwick, Vice-Pres.
B. Chadwick
C. Weilbacher
E. Weilbacher

Standard-Coosa-Thatcher Co. **317**
10th & Watkins Sts., Chattanooga 1, Tenn.
Exhibiting: Industrial sewing thread; mercerized cotton yarns.
Personnel in booth:
F. R. Harris, Vice-Pres., *Hotel*: Traymore
E. S. Davis, Treas. & Export Mgr., The Claridge
D. B. Barlow, Asst. Treas., The Claridge
R. C. Thatcher, Jr., Vice-Pres., Hotel Traymore
R. D. Pullen, Sales Rep. The Claridge
W. S. Lawson, Sales Rep., The Claridge
Wm. M. Hall, Sales Rep., The Claridge
James H. Clarke, Sales Rep., The Claridge
Jos. Patrick, Sales Rep., The Claridge
Robert Swan, Sales Rep., The Claridge
J. O. Foil, Sales Rep., The Claridge
Muir Lyon, Sales Rep., The Claridge
W. T. Warmath, Sales Rep., The Claridge
Robert Miller, Sales Rep., The Claridge
Jas. M. Smith, Hotel Traymore

Standard Yarn Mills, Inc. **190**
83rd St. & Cooper Ave., Glendale 27, N. Y.
Exhibiting: Lame and Lame with Mylar; knitted and woven fabrics illustrating the decorative and fashion beauty of Lame non-tarnishable yarns.
Personnel in booth:
H. Rosenblatt, Pres. Standard Yarn Mills Inc.
Standard Yarn continued
A. Nadel, Vice-Pres., Standard Yarn Mills Inc.
E. H. Ellis, Iselin-Jefferson Co.
Harry James, Wm. Cheatham & Co., Sou. Sales Rep.
Hotel: Shelburne

Staroba Industrial Research Co., Ltd. **379**
299 Adelaide St. West, Toronto 2-b, Ont. Can.
Exhibiting: Circular knitting machine, Model MD-400, for seamless hose with 3¾" cylinder, 400 needles, double feed; circular knitting machine Model "Universal" for ladies' knee-high seamless hose, with elasticized knitted-in top-band, 3¾" cylinder, 36 needles, double feed; an automatic shuttleless jet loom, Model P-45, with a working reed space of 18" and speed up to 800 ppm weaving cotton yarns.
Personnel in booth:
R. V. Smith, Sales Mgr. Tex. Mach. Div.
T. Wilkinson, Service Mgr.
Miss Stela Staroba, Adv. & Pub. Rel.

Steel Heddle Mfg. Co. **553**
2100 W. Allegheny Ave., Philadelphia 32, Pa.
Exhibiting: Gyrotex line of throwing bobbins for use with synthetic yarns.
Personnel in booth:
Tom C. Jackson, Mgr. Bobbin Div.
Hotel: Haddon Hall

Steele Canvas Basket Co., Inc. **40**
Box 64, Cambridge 40, Mass.
Exhibiting: Canvas baskets, trucks, hampers, and specialties.
Personnel in booth:
A. E. Pratley, Pres.
G. L. Whynaught, Sales Mgr.
Hotel: Ritz Carlton

Steinberg Brothers **203**
Stonehill Knitting Machine Corp.
174 Scholes St., Brooklyn, N. Y.
Exhibiting: Universal flat knitting machines, including the Supramat SF 10-cut 63" machine, the Supramat SFV 4-cut 63" machine, and the Suprafix SG 10-cut 24" machine; Stonehill cloth slitting machine.
Personnel in booth:
J. Steinberg, Pres.
H. Steinberg, Treas.

Sterling Eng. & Mfg. Co. **149**
173 Gilligan St., Wilkes-Barre, Pa.
Exhibiting: Self-stacking boards for handling bobbins, cones, tubes, quills, etc., made of cadmium plated and stainless steel; aluminum quill boards and self-stacking tube boards with flexible holder for yarn shrinkage; yarn handling trucks.
Personnel in booth:
George McGee, Vice-Pres.
Hotel: Dennis

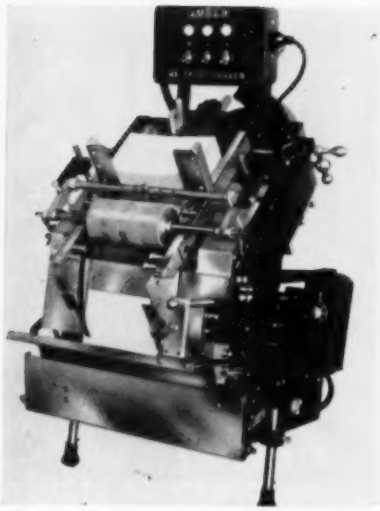
Stop-Motion Devices Corp. **193**
1471-77 Fulton St., Brooklyn 16, N. Y.
Exhibiting: "Wesco" electric stop motions for all types of knitting machines; and for the first time "Wesco" electric stop motions for sewing machines—they stop the machine automatically when the top or bottom thread breaks and also when the bobbin runs out of thread and when goods run out of machine.
Personnel in booth:
N. J. Tellerman, Sales & Service Mgr.
G. Connors, Sales & Service Rep.
Bill Chaplin, Sales & Service Rep.
F. Weston, Export Mgr.
Ed. Vossen, Engineering

Supreme Knitting Machine Co., Inc. **451**
94-02 104th St., Ozone Park 16, N. Y.
Exhibiting: The Model SAAF/C automatic striping machine for making patterned, striped, or plain jersey fabrics; the Model MJ machine for high-speed production of jersey fabrics; and for the first time the Model SAI/PF machine which is equipped to make automatic variable striped and patterned rib fabrics, the Model ROF/T machine which is equipped to manufacture patterned back tie-in fleece fabrics, and the Model MLV/N which is a versatile loop machine for making all-over loop cloth, as well as patterned or plain jersey fabrics.
Personnel in booth:
Sam Mishcon, Pres.
L. Mishcon, Vice-Pres.
S. Mishcon, Sec.
H. Agulnek, Vice-Pres.
I. M. Golden, Sales Mgr.
H. A. Strasburg, Dir. of Foreign Sales
B. Narker, Dir. of Pur. & Adv. Mgr.
Al Malluck, Sou. Sales Rep.
C. Dupuis, Tech.
J. Teitelbaum, Tech.
J. Radin, Tech.
Hotel: Shelburne

Synthane Corp. **372**
Oaks, Pa.
Exhibiting: Laminated plastic products, including sheets, rods, tubes, fabricated parts such as bobbins, pirns, pirn caps, hosiery examining forms, and other accessories.
Personnel in booth:
E. E. Smith, Sales Mgr.
H. Widdop, Mgr. Customer Service & Sales Prom.
J. K. Johnson, Dist. Sales Mgr.
C. B. Moss, S. E. Sales Mgr.
J. M. Price, Dist. Sales Mgr.

Synthetic Yarns **327**
Synfoam Yarns, Inc.
Lowell, Mass.
Exhibiting: Thrown yarns of all synthetic fibers, including rayon, acetate, nylon, Dacron, etc., put up on headless packages and on cones; stretch Helanca type nylon and Dacron yarn put up on cones and headless packages.
(See Malina Co.)

James Talcott, Inc. **23**
225 Fourth Ave., New York 3, N. Y.
Exhibiting: Graphs to show how factoring



The "Amsco" Power Jaw sealer-labeler machine for sealing bags made of various films.

The V-S Jr. variable speed electronic drive will be featured by Reliance Electric.

can assist a company in its expansion program.
Personnel in booth:
E. P. Lewis, Exec. Vice-Pres.
S. B. Salvesen, Asst. Vice-Pres.
J. A. Zeller

Irving A. Tannenbaum & Co. **554**
Street & Knights Rds., Eddington, Pa.
Exhibiting: All types of sewing thread in nylon, Orlon, Dacron, etc.; thread on all types of put-ups; special nylon separating thread for sweater trade; all types of combination yarns; large package plying equipment.
Personnel in booth:
I. A. Tannenbaum
M. Tannenbaum, Sales
H. Teich, Sales
A. Brown, Asst. Gen. Mgr.
A. Walser, Asst. Gen. Mgr.
Hotel: Strand

Tele-Sonic Packaging Corp. **448**
208 W. 27th St., New York, N. Y.
Exhibiting: Bag opening and filling machines.
Personnel in booth:
J. P. Frank, Pres.
H. Bardack, Vice-Pres.
I. Rosenbloom, Salesman

Templon Spinning Mills **218**
Mooresville, N. C.

Textile Age (publication) **400**
1 River Rd., Cos Cob, Conn.

Textile Industries (publication) **106**
806 Peachtree St., N.E., Atlanta 8, Ga.
Exhibiting: Technical books and literature for knitting mill management and production personnel.
Personnel in booth:
M. C. May, Assoc. Ed., Hotel Claridge
S. M. Suchecki, Assoc. Ed., Hotel Claridge
J. C. Cook, Bus. Mgr., Hotel Dennis
W. K. Hoffman, Bus. Rep., Hotel Dennis
A. C. Shaw, Bus. Rep., Hotel Dennis
G. Isherwood, Bus. Rep., Hotel Dennis
E. I. Leeds, Jr., Circulation Rep.
W. C. Valentine, Circulation Rep.

Textile Machine Works **510**
P O Box 1382, Reading, Pa.
Exhibiting: For the first time three "Reading" CK-A circular knitting machines for making men's and boys' fancy patterned hosiery; displays and information on the "Reading" 100 full-fashioned hosiery machine and the "Reading" full-fashioned outerwear machine, and other knitting accessories; displays and information on the "Reading" tricot machine, spring beard needles, "Arrow" latch needles, and other wire products.
Personnel in booth:
R. C. Wetzel, Pres.
L. R. Thun, Exec. Vice-Pres. & Treas.
R. N. Apprich, Vice-Pres., Sales

Textile Machine Works continued
E. P. Master, Sec.
L. C. Scheffey, Jr., Asst. Sec.
R. J. Ryan, Asst. Treas.
R. W. Weaver, Mgr. Knitting Mach. Div.
E. A. Shoemaker, Sales Mgr. Knitting Mach. Div.
H. R. Wade, Knitting Mach. Div.
C. R. Moyer, Knitting Mach. Div.
P. Kroener, Knitting Mach. Div.
W. Heckman, Knitting Mach. Div.
W. A. Dufft, Knitting Mach. Div.
H. Wendling, Knitting Mach. Div.
E. Rehmann, Knitting Mach. Div.
G. Henning, Knitting Mach. Div.
E. Paige, Knitting Mach. Div.
H. G. Fiedler, Mgr. Wire Prod. Div.
L. T. Yeager, Sales Mgr. Wire Prod. Div.
H. Hank, Wire Prod. Div.
W. Haupt, Wire Prod. Div.
D. Hehr, Wire Prod. Div.
D. Heydt, Wire Prod. Div.
D. McDonnell, Wire Prod. Div.
R. Rogers, Wire Prod. Div.
L. C. Scheffey, Jr., Mgr. Circular Mach. Sec.
N. J. Heaslip, Circular Mach. Sec.
B. F. Coile, Circular Mach. Sec.
N. Levin, Circular Mach. Sec.
J. E. Kline, Mgr., International Div.
L. P. Garrigan, Sales Mgr., Reading
W. Dresher, Mgr., European
M. Couden
J. Doorlay
E. Frank
F. Hughes
W. Marshall
H. Printz
D. S. Rook, Adv. Asst. to Vice-Pres., Sales
Hotel: Claridge

Textile World (publication) **291**
330 W. 42nd St., New York 36, N. Y.

Textiles Inc. **367**
1213 Old York Rd., Abington, Pa.

Threads Inc. **61**
1006 S. Michigan Ave., Chicago, Ill.

Tompkins Brothers Co. **450**
623 Oneida St., Syracuse, N. Y.
Exhibiting: The all-new Model S-1 Junior circular spring needle knitting machine in operation; Pictures of other Tompkins machines and samples of finished cloth knitted on these machines.
Personnel in booth:
W. A. Ingalls
H. A. Fairchild
H. Hitchcock
Hotel: Madison.

The Torrington Co. **301**
59 Field St., Torrington, Conn.
Exhibiting: Knitting machine needles of all types.
Personnel in booth:
W. R. Reid, Jr., Gen. Sales Mgr.
C. H. Rowe, Sales Mgr. Needle Div.
C. R. Johnson, Asst. Sales Mgr. Needle Div.
L. W. Losee, Sales Div.

Torrington continued
A. V. Maurer, Br. Mgr.
F. A. Howard, Sales Div.
W. L. Meeter, Br. Mgr.
D. A. Burghoff, Sales Div.
H. D. Blake, Br. Mgr.
H. S. Gordon, Sales Div.
G. T. Stanley, Sales Div.
H. E. Gosling, Sales Div.
C. T. Spalding, Br. Mgr.
W. Myers, Sales Div.
R. L. Brace, Sales Div.
E. D. Schwarze, Sales Div.
J. J. McCaffrey, Sales Div.
J. W. Beaber, Br. Mgr.
P. S. Warner, Sales Div.
W. A. Patz, Sales Div.
H. E. Gosling, Jr., Sales Div.
P. G. Stubbs, Br. Mgr.
G. B. Walls, Sales Div.
H. M. Deming, Vice-Pres.
L. R. Whitcomb, Sales Div.
Hotel: Claridge

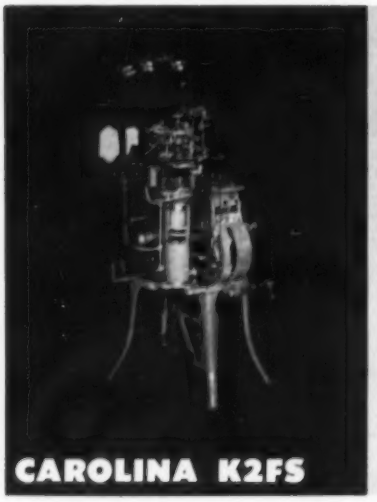
Tricoma Inc. **178**
7504 Empire State Bldg., New York 1, N. Y.
Exhibiting: For the first time in this country the following machines manufactured by Hertel & Richter GmbH & Co., Kiel, Western Germany: Automatic C/e fully automatic single lock flat power machine with electro-magnetic controls of all motions and changes obtained through a perforated microfilm at side of machine; Automatic C/a single lock flat power machine with same control of knitting functions as Model C/e but with semi-automatic change from cardigan patterns to separation course; MCI fully automatic single lock flat power machine with mechanical control of knitting functions through paper card mechanism; MJ semi-automatic flat Jacquard for production of four-color Jacquard fabrics or up to nine trimming strips in two-color Jacquard designs, with mechanical controls; MZ semi-automatic stitch increase machine, featuring fully automatic control of stitch increase device by a microfilm strip which permits addition of needles on right or left at discretion of knitter, or on both sides. Also for the first time in this country the following machine built by Officine Moncenisio S.p.a., Condove, Italy, will be shown; Tricolor, double cylinder three-feed Jacquard machine for men's and children's half hose with elasticized 1/1 rib top, rib Jacquard patterned leg and instep, honeycomb stitch sole and solid color heel and toe. The Model HICO-UNI No. 1575 linking machine for outerwear built by Hilber & Co., KG, Westheim, Germany, will be displayed. And, finally, the Model N-49 "Superconer" winding machine for winding from supply cones to knitting cones, built in Italy.
Personnel in booth:
W. W. Glocer, Pres.
C. E. Weinberg, Vice-Pres.
Mrs. E. Just — F. Garlboldi
Mrs. U. Glocer — A. Baumgarten
B. Schulz — J. Nussbaum
Hotel: Shelburne

Tubular Textile Machinery Corp. **166**
33-61 54th St., Woodside, L. I., N. Y.
Exhibiting: Full range of finishing machinery for circular knit fabrics, including the extractor-pad, reel-jet dryer, tensionless calender, electronic framer and steamer, and matching machine.
Personnel in booth:
E. Cohn
J. Cohn — J. Sasson
D. Foreman — L. Rothenberg

Turbo Machine Co. **59**
840 West Main St., Lansdale, Pa.
Exhibiting: Space for visitors.
Personnel in booth:
E. J. Berger, Vice-Pres.
B. C. Hall
P. Huguenin
P. Wenhold

E. W. Twitchell, Inc. **144**
2801 N. 3rd St., Philadelphia 33, Pa.
Exhibiting: Complete packaging line.
Personnel in booth:
J. B. Holland, Vice-Pres.
P. Wark, Asst. Div. Mgr.
B. Therrell, Sales Rep.
B. Weingard, Sales Rep.
P. B. Miller, Sales Rep.
B. J. Vetrone, Sales Rep.
N. Sullivan, Sales Rep.
Hotel: Claridge

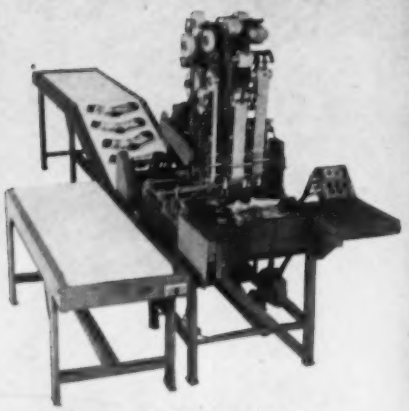
Union Special Machine Co. **458**
400 N. Franklin St., Chicago 10, Ill.
Exhibiting: Style 41300 W hosiery seamer for all weights of nylon, silk, rayon, or cotton full-fashioned hosiery; Style 41300 X for seaming full-fashioned sweaters with



CAROLINA K2FS

We'll demonstrate this machine in booths #170-177 at the Knitting Arts Exhibition. Ladies two feed, 400 needle seamless hose knitter. Knits five dozen pairs of hose every 24 hours. Available in 3½" or 3¼" diameter 400 to 474 needle.

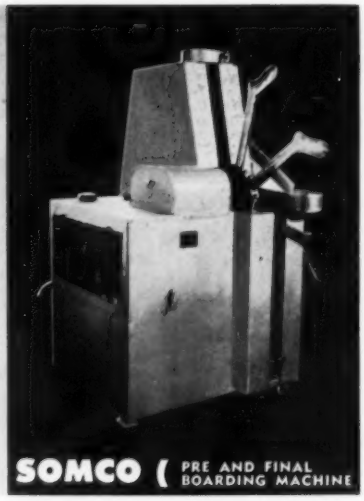
CAROLINA KNITTING MACHINE CORP.
508 W. 5th Street, Charlotte, N. C., U.S.A.
Phone EDison 4-5546



BOWMAN (AUTOMATIC TRANSFER MACHINE

Come to booths #170-177 at the Knitting Arts Exhibition and let us show you how to increase production—paced by this one machine. The Bowman will do the work of two or three girls now on your payroll, applying one, two or three transfers to 1,200 to 1,500 dozen pairs of men's, misses and children's, every 8 hours.

SOUTHERN MILL EQUIPMENT CORP.
508 W. 5th Street, Charlotte, N. C., U.S.A.
Phone EDison 4-5546



SOMCO (PRE AND FINAL BOARDING MACHINE

One operator can preboard or final board over 200 dozen pairs of hose in 8 hours. Similar high production on gloves. Uses very small amount of floor space. Uses no steam. Lower cost from beginning to end. Let us show you these machines in booths #170-177 at the Knitting Arts Exhibition.

SOUTHERN MILL EQUIPMENT CORP.
508 W. 5th Street, Charlotte, N. C., U.S.A.
Phone EDison 4-5546

THE MORRIS SPEIZMAN COMPANIES

SERVING THE HOSIERY INDUSTRY . . . EVERYTHING FROM A NEEDLE TO A COMPLETE PLANT

Avondale Yarns

Sold through Comer-Avondale Mills, Inc. Headquarters: Sylacauga, Alabama

quality-controlled for uniformity and consistently superior performance on your knitting machines

LARGEST PRODUCERS OF QUALITY CARDED COTTON KNITTING YARNS IN THE UNITED STATES

COMER-AVONDALE MILLS, INC.

offices at:

BOSTON	NEW YORK	CHARLOTTE	PHILADELPHIA	CHATTANOOGA	READING	CHICAGO
Liberty 2-9511	Lackawanna 4-8400	Edison 4-5379	Rittenhouse 6-3754	Long distance 38 or Chattanooga 6-4014	Reading 2-1122	Dearborn 2-4594

stitch Type 101; new overseamers, including the Style 39500 A for nylon panties, gowns, and slips, and the Style 39500 F for blind hemming bottoms of T-shirts, polo shirts, and sleeves; the 50,000 series flat bed machines, including Style 52800 BR for attaching split tube borders to neck and arm hole of athletic shirts made of light to medium weight knitted cotton and rayon fabrics, Style 52700 BN for attaching lace or elastic to tops of ladies' panties.
Personnel in booth:
T. S. Whitsel, Vice-Pres.
C. L. Rosenquist, Asst. Sales Mgr.
L. M. Brown, Mgr. Prod. Application Dept.
A. J. Feigel, Sales Prom. Mgr.
M. M. Ambrose, Prod. Application Dept.
B. W. Merz, Dist. Mgr.
J. R. Haderly, Asst. Dist. Mgr.
W. G. Booth, Dist. Mgr.
E. S. Rockney, Asst. Dist. Mgr.
W. E. Pal, Dist. Mgr.
L. D. Cassell, D. M. Bender, C. D. Mairs, E. M. Nusbickel, R. B. Foster, H. T. Powell, R. L. Smith, E. W. White, R. S. Vogt, M. F. Groover

United Elastic Corp. **90**
P O Box 391, Easthampton, Mass.
Exhibiting: Elastic webbing and braid for underwear and hosiery and all other purposes.
Personnel in booth:
R. A. Waite, Sales Mgr.
W. E. Dalby, Sales Co-ordinator
E. R. Boehm, G. B. Weidhaas, F. L. Dorr, D. B. Cameron, E. E. Cadwell
Hotel: Dennis

United Shoe Machinery Corp. **438**
140 Federal St., Boston, Mass.
Exhibiting: The latest model carton forming machine that produces strong, rigid boxes from flat blanks.
Personnel in booth:
R. A. McA. Lloyd, Mgr. Packaging Dept.
R. K. Sprague
D. C. Smith

U. S. Blind Stitch Machine Corp. **564**
312 7th Ave., New York 1, N. Y.
Exhibiting: Blind stitch machine for mock fashion operation; blind stitch machine for all regular hemming operations on knitted outerwear.
Personnel in booth:
J. Bruno, Pres.
G. Motzel, Sales Mgr.
B. Zeldis, Rep.

U. S. Hoffman Machinery Corp. **441**
270 Park Ave., New York 17, N. Y.

United States Hosiery Corp. **482**
350 Fifth Ave., New York City 1, N. Y.
Exhibiting: 474-needle twin-feed seamless ladies' knitting machine; industrial sewing machine "Mauser Special;" Svegea stripping machine.
Personnel in booth:
J. N. Bogoff, Pres.
J. MacEachern, Engr.
H. Booton
Hotel: Claridge

United States Rubber Co. **315**
Lastex Yarn & Rubber Thread Division
1230 Ave. of the Americas, New York 20, N. Y.
Exhibiting: "Lastex" and "Laton" elastic yarns; "Lactron" extruded rubber thread, "Revere" cut rubber thread and tape.
Personnel in booth:
M. E. Bliss, H. B. Cobb, W. F. Giddings, W. J. Connelly, P. J. Regan, A. R. Engel, H. Young

United States Rubber Co. **280**
Textile Division
1230 Ave. of the Americas, New York 20, N. Y.
Exhibiting: End products made from Uspun yarns.
Personnel in booth:
W. E. Clark, Vice-Pres. & Gen. Mgr. Tex. Div.
W. D. Johnson, Gen. Sales Mgr.
V. C. McQuiddy, Jr., Sales Mgr. Tex. Prod.
J. H. Shaw, Sales Mgr. Yarns
J. B. Backson, Sales Mgr. Tufting Chenille and Floor Covering Yarns
S. K. George, III, Sales Mgr. Knitting, Weaving, and Special Yarns
J. Blum, Prod. Development and Tech. Service Supv.
J. M. Pope, Sales Orders Service Supv.
B. W. Wiesen, Sales Rep.
R. R. Hampton, Sales Rep.
R. W. Jennette, Sales Rep.
W. H. Brie, Jr., Sales Rep.

U. S. Rubber continued
J. W. Reid, Sales Rep.
R. S. Gibson, Sales Rep.
H. E. Anderson, Sales Rep.
W. J. McCarty, Sales Rep.
R. P. Clark, Sales Rep.
A. K. Brown, Sales Rep.

United States Testing Co., Inc. **462**
1415 Park Ave., Hoboken, N. J.
Exhibiting: Certified fugitive tints; testing and research services; general testing instruments; and for the first time a pilling tester, singles twist tester, and knit shrinkage gauge.
Personnel in booth:
F. P. Brennan, Asst. Sales Mgr.
C. M. Michie, Jr., Sou. Rep.
E. G. Railo, Tech. Service

U. S. Textile Machine Co. **181**
411 Gilligan St., Scranton, Penna.
Exhibiting: Space for visitors.
Personnel in booth:
A. W. Thomas, Jr., Vice-Pres. Sales
P. J. Thomas, Vice-Pres.
F. C. Nave, Sou. Rep.
Hotel: Dennis

Universal Winding Co. **219**
P. O. Box 1605, Providence 1, R. I.
Exhibiting: Stretch and bulk yarns produced on Superloft and Fluflon stretch yarn machinery; also fabrics made from these yarns.
Personnel in booth:
R. Leeson, R. S. Pennock, T. L. Cotter, J. W. Scribling, P. P. Johnson, J. R. Breen, W. V. Goodhue, F. P. Barrie, J. V. Keith, J. A. Freed, J. B. Howarth, E. Stowell, A. D. Weston, K. H. Gibson, J. A. Nasmith, C. Dudzik, H. H. Richardson

Utica Novelty & Mill Specialty Co. **160**
2145 Dwyer Ave., Utica 2, N. Y.
Exhibiting: The Utica extractor loader and unloader; automatic lay-up machine; combination roll winder and strip cutter; and for the first time the Utica automatic double cuff cutting and turning machine.
Personnel in booth:
J. A. Firsching, Jr., D. F. Firsching, J. A. Firsching, 3rd

Valdese Mfg. Co., Inc. **545**
Valdese, N. C.

Veeder-Root, Inc. **537**
70 Sargeant St., Hartford 2, Conn.
Exhibiting: Counters for manual tallying, remote indication, shift recording, length control, and prevention of production overruns or under-runs.
Personnel in booth:
A. E. Kallinich, Vice-Pres.
G. L. Logan, Sales Mgr.
T. Nelson, Field Sales Mgr.
F. J. Swords, Dist. Mgr.
R. E. Walker, Dist. Mgr.
R. G. Perfect, Dist. Mgr.
Hotel: Shelburne

Victor Ring Traveler Division **42**
Saco-Lowell Shops
20 Mathewson St., Providence 1, R. I.
Exhibiting: Space for visitors.
Personnel in booth:
H. E. Robbins, Gen. Mgr.
A. F. Howard, Asst. Gen. Mgr.
B. H. Waterman, Service Engr.
E. L. Connor, Service Engr.
E. Cranshaw, Service Engr.
Hotel: Shelburne

Walton Laboratories, Inc. **446**
1186 Grove St., Irvington 11, N. J.
Exhibiting: Humidifiers, dehumidifiers, humidity controls and indicators.
Personnel in booth:
J. Feldermann, G. Lyons, B. Lewis

Western Printing Co. **386**
475 Alfred Ave., Teaneck, N. J.
Exhibiting: The new Wrapak automatic diaper band packager for stretch socks.
Personnel in booth:
N. A. Bruml, Sales Mgr.
Joe Frazier, Rep.
Hotel: Shelburne

Westinghouse Electric Corp. **76**
East Pittsburgh, Pa.
Exhibiting: A-c motor; totally enclosed, fan-cooled lint-free a-c motor; Life Line A motor that is drip-proof; totally enclosed, non-ventilated Life Line A motor; full-fashioned knitting machine drive; Dynac controller for electric braking of a-c motors.
Personnel in booth:
D. B. Cullis, Sales Engr.
F. T. Benner, Sales Engr.
P. F. Holstein, Mgr. General Industries Sec.
Hotel: Shelburne

Whitin Machine Works **425**
Main St., Whitinsville, Mass.
Exhibiting: Space for visitors.
Personnel in booth:
J. H. Bolton, Pres. Shelburne Hotel
H. Moss, Vice-Pres., Shelburne Hotel
R. F. Waters, Mgr. Knitting Div. Shelburne Hotel
G. F. McRoberts, Adv. Mgr., Shelburne Hotel
Charles May, Service Engineer, Madison Hotel

Paul Whitin Mfg. Co. **284**
212 Summer St., Boston, Mass.
(See Percy A. Legge)

Wildman-Jacquard Co. **250**
1210 Stanbridge St., Norristown, Pa.
Exhibiting: Three Jacquard machines, including the Model "TJI-12," "TAI-24," and the new Model "AI" circular interlock machine (rib type) which is built in 32" diameter with 32 feeds and knits bodies in interlock with 1 x 1 cuff and incorporates all of the latest engineering improvements to achieve maximum efficiency and quality of product.
Four Wildman machines, including the No. "FBW-6" pile fabric knitting machine, the style "TFS" 30" single section full-fashioned sweater machine with striper attachment, V-neck, lace attachment, loose waler, etc.; "PB-2" rib striping machine which knits 1 x 1 or 2 x 2 fabric, striped fabrics of unlimited patterns, half cardigan, English or round welt, French or tubular welt, and clearing course or draw thread; the "TFSS" 18" single section full-fashioned sleever machine, 21 gauge, equipped with striper attachment, lace attachment, etc.
Personnel in booth:
C. F. Miller, Vice-Pres.
R. C. Dott, Sales Mgr.
J. Tittl, Service Mgr.
J. Olachea, Sales
F. Beeton, Service
J. Brennan, Sales
Frank Wildman, Jr., Sales
(See also Hemphill Co. and Draper Corp.)

Wilcox & Gibbs Sewing Machine Co. **353**
214 West 39th St., New York 18, N. Y.
Exhibiting: Superlock Type 803; Serge and Seam Class 1400; Flatlock Type 1300; Pfaff Bar Tacker Model 3334; Pfaff Lockstitch, Model 436; and for the first time the Pfaff Model 258 machine for producing ornamental Zig Zag designs on knit rayon and silk undergarments and lingerie.
Personnel in booth:
N. Wonnacott, E. LeFevre, A. Miller, H. Russell, C. Haviland, Jr., J. Fiola, A. Selby, F. Perkins, L. Connolly, G. Tobey
Hotel: Madison

Wovencraft for Woven Labels **164B**
1199 Broadway, New York, N. Y.

Welcome to Booth 106

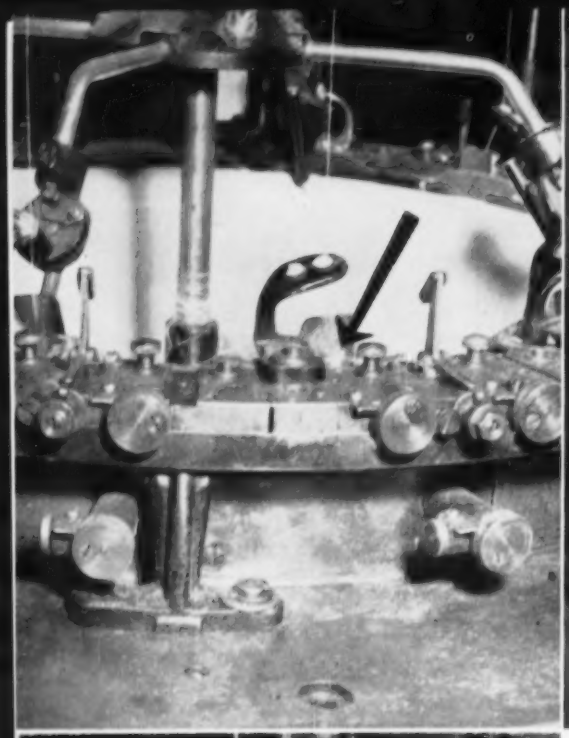
TEXTILE INDUSTRIES'

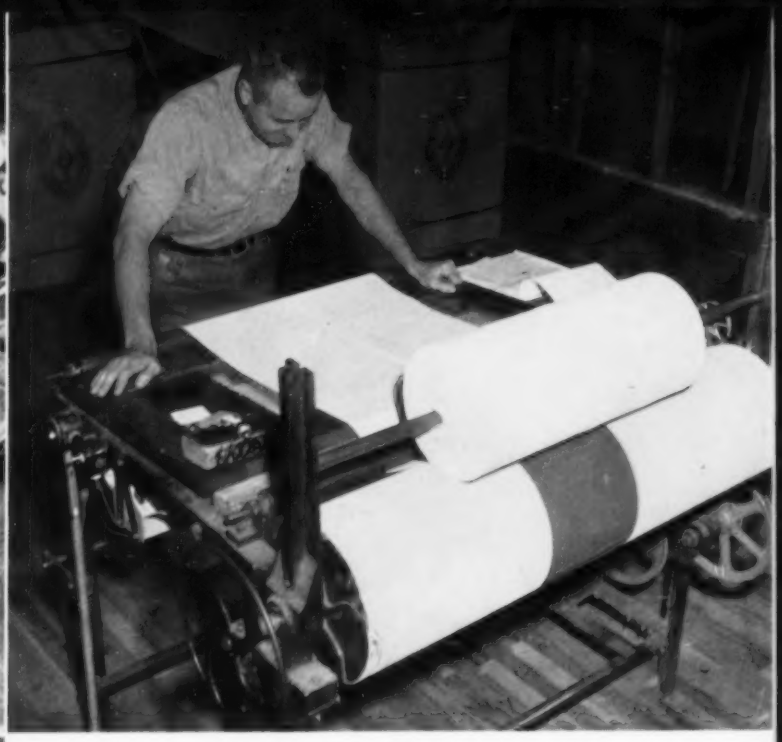
booth at the
Knitting Arts Exhibition.

Stop in and visit with us.
We look forward to the pleasure of meeting many of our readers, as well as suppliers to the more than 2600 hosiery, underwear, and outerwear mills in the U. S.

The Editors, Business and Circulation Representatives.

Knitting Show Floor Plan on Page 173





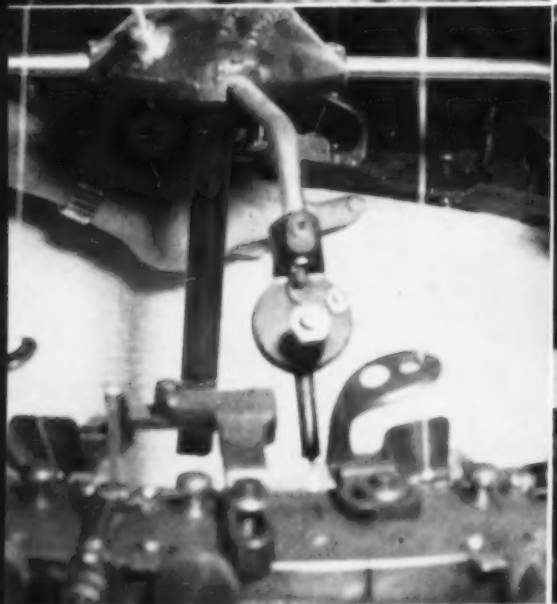
Above left: Lint in the yarn guides and chokes (arrow) have an undesirable effect on quality as well as on production. Knitters guard against this.

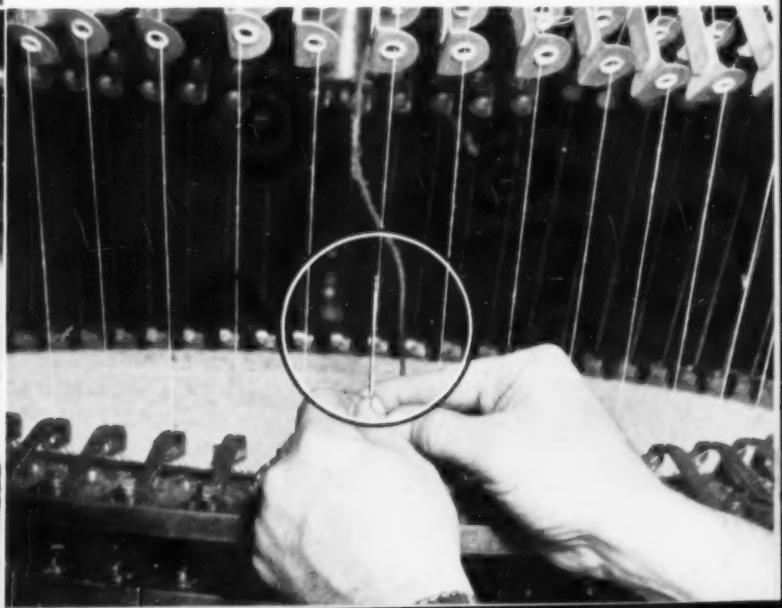
Above right: Inspectors are important to quality. They notify those responsible for any minor discrepancies not noted during the knitting operation.

Left: Tucked stitches (arrow) or birdseyes may create a lot of waste if knitters fail to stay on the alert.

Below left: High sinkers make streaks in the fabric as shown at tip of knitter's finger. Knitters are on a constant lookout for such defects.

Below right: Knitters check for bent needles (circle) or needle latches which devour profits if left unnoticed or unattended.





The general appearance of the cloth is checked, as the knitter is doing above, for correct colors in the pattern as well as for the correct construction. Each knitter must know the appearance of the correct pattern in order to detect irregularities quickly.

Trained to spot defects and machine malfunctions, Cornucopia Corporation's

Knitters control quality

Staff Prepared

Exclusive

STARTING with a good yarn is one of the most important adjuncts to knitting a good fabric. After a good yarn supply is established, any difficulties may then be attributed to mechanical operation of the machine.

Obstructions, burrs, lint congestion, or anything else that drags on the yarn may cause trouble, according to experience at the Cornucopia Corp., Belmont, N. C.

This mill makes a diversified line of tubular knit goods, both plain and fancy. Observations at Cornucopia Corp. indicate that if the machine is maintained properly, there is less likelihood of trouble in production.

Inspection merely amounts to checking what has already been done by the machines, and although this operation is an important necessity, production of good quality fabrics depends largely on the knitter.

If a man runs six machines, five of which are making first quality work and one making defects, the machine making defects cancels the profit of the other five. Furthermore, the seconds are usually difficult to dispose of.

Cornucopia Corp. has good, experienced knitters who are credited with fabric quality, one management official said. These knitters patrol the machines regularly. They are constantly on the alert for anything suspicious on the production equipment. Heavy ends are especially objectionable in this plant.

While on patrol the knitters look for:

(1) Heavy ends.

(2) Tucked stitches or birdseyes.

(3) High sinkers (which make streaks).

(4) Lint in yarn guides (makes holes and tight streaks).

(5) General appearance of cloth for correct colors in pattern, and other details (knitter should know what correct pattern looks like so he can recognize trouble).

In this mill, the knitter lubricates his machines after each roll of cloth and also does most of his own fixing. This way, the knitter is directly responsible for his machines and production. Knitters report to the mill superintendent who is notified of anything unusual.

Inspectors are important and notify those responsible for any minor discrepancies not observed in the knitting operation. This is especially important in noting yield (yards per pound). Incorrect yield may make the fabric unsatisfactory to the customer, there-

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PIONEERS IN THE BETTER FINISHES THAT MAKE THE BETTER FABRICS . . . SINCE 1907

Authorized Manufacturers and Distributors of LANOLIZED—The Miracle Finish. Collins & Westmoreland Sts., Philadelphia 34, Pa. IN CANADA: Scholler Bros., Ltd., St. Catharines, Ontario.

Visit us at the Knitting Arts Exhibition, Atlantic City—Booth 463-4-5 and 474-5-6

by classifying the batch into rejects. Also, the profit may go down the drain if the fabric is too heavy.

Yarns range in price from about 87 cents to $2.20 a pound, and sometimes as high as $11.00 a pound for metallic yarns. These prices make adherence to fabric specifications a must.

The knitter blows off and cleans the machines thoroughly once after each roll of cloth. Some rolls are removed once every hour; some are removed once every eight hours. Other cleaning is done between rolls as needed and as time permits, but emphasis is placed on cleanliness to assure minimum trouble from this source.

Emphasis is placed on cleanliness. Knitters blow off and clean machines thoroughly after each roll of cloth. Other cleaning is done between rolls as needed.

Knitting Show *(from page 159)*

Those who are not planning to spend the entire week in Atlantic City should give special attention to the above schedule. Note particularly that noon is the opening hour on both Monday and Tuesday; also that the closing hour on Tuesday is 10:00 P.M.

Admission. Tickets for admission are free to knitting industry personnel, but the general public is not invited. Tickets are available from (1) any exhibitor, (2) the sponsoring associations, or (3) the exhibition management with offices at 332 Park Square Building, Boston, Mass., or 468 Fourth Ave., New York, N. Y.

Readers of this publication are invited to request them from the editors, either by addressing their request to The Editors, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 8, Ga., or using the postage-free Handy Return Card on page 223.

Hotel Accommodations. If your hotel reservations have not already been made, send immediately your requirements directly to the Housing Bureau, 16 Central Pier, Atlantic City, N. J.

Association Activities. Concurrent events scheduled during the week of the knitting show are:

The National Association of Hosiery Manufacturers will hold its annual meeting at the Claridge Hotel on Monday, and two sessions of the Hosiery Industry Conference are planned for Monday and Tuesday, also at the Claridge. The Association's annual banquet is to be held at the Claridge on Monday evening.

On Sunday, April 28, at 5:30 P.M., the Underwear Institute is having a reception for its officers and directors, followed by a dinner meeting which will constitute the annual directors meeting. The Institute's annual meeting will convene at 9:00 A.M. on Monday. At 5:30 P.M. that evening the members will reassemble for a reception, followed by a dinner which will mark the retirement of Roy A. Cheney from the position of president of the Institute.

The National Knitted Outerwear Association will hold a reception to its members and those in allied fields at the Shelburne Hotel on Wednesday, May 1, from 5 to 7 P.M.

How to Get More from the Show. More and more are cost- and quality-conscious knitting mill officials sending their operating executives, as well as top management personnel, to the Knitting Arts Exhibition.

Since supervisors of knitting, looping or seaming, dyeing and finishing, and other key technical personnel are so close to the manufacturing operation, being faced with production problems daily, they seem to more readily accumulate ideas for increasing plant efficiency, reducing cost, and increasing output.

So, include at least one or two of these valuable men of your organization in your plans for this year's show.

Instruct them push buttons, pull levers, turn switches . . . see, touch, and try the new developments for themselves so they will be in position to evaluate competitive products. Urge them to talk to the hundreds of suppliers' technical experts who can help them solve their problems.

"H-W" conditioner

The completely automatic conditioner

Twist Setting

for cotton, woolen, worsted, silk and synthetic yarn, nylon hosiery

Regain

You are cordially invited to inspect our latest model conditioner at Booths 151 and 152, Knitting Arts Exhibition.

"H-W" Conditioner for Cotton Knitting Yarn

Lofting

Pre-Setting

THE INDUSTRIAL DRYER CORPORATION

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ON PROGRESS

He who does not advance falls back; he who ceases to grow greater becomes smaller; he who leaves off gives up. The stationary condition is the beginning of the end.

HENRI-FRÉDÉRIC, 1880

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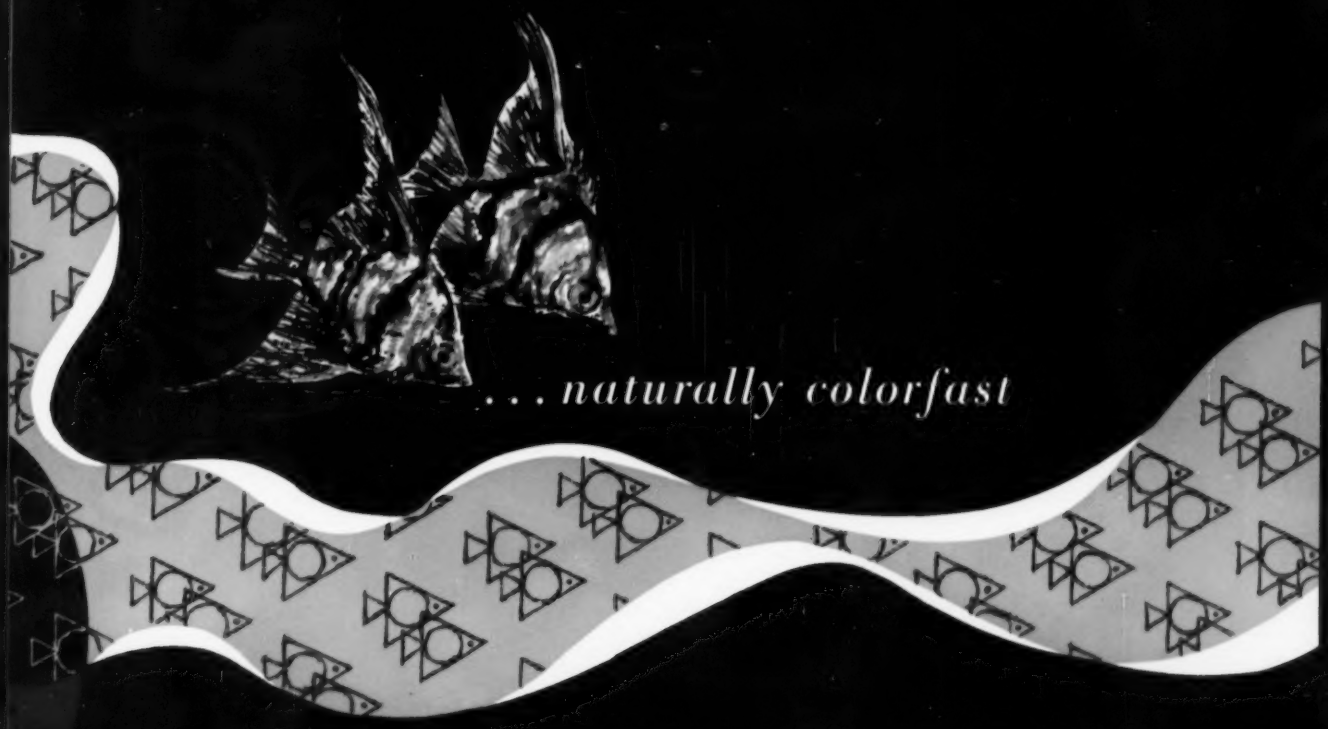

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BLACKMAN-UHLER CO., SPARTANBURG, S. C.
ALLIANCE COLOR & CHEMICAL CO., NEWARK, N. J.
DIVISIONS OF THE ANDOVER COMPANY

STOCKS AT CHATTANOOGA, TENN., GREENSBORO, N. C., CHARLOTTE, N. C., COLUMBUS, GA., PROVIDENCE, R. I.

bu ALLIANCE

In the critical operations of inspecting and pairing, one dozen pairs of socks are laid down, as in picture above, and are inspected and paired simultaneously. The table top cover found best for the operators is a dull red heather-effect linoleum.

How they handle socks

at Iredell Finishing Mills—inspection and pairing are termed critical

Staff Prepared

Exclusive

IREDELL Finishing Mills, Statesville, N. C., has found that the answer to many headaches in men's hosiery finishing lies in hiring and keeping conscientious employees. This is especially true of pairers. Iredell prefers to hire inexperienced operators and train them to suit the operation.

Socks are received in the grey, tied in bundles of a dozen pairs—whether cotton or wool. The finishing operations comprise washing, rinsing, dyeing (and preshrinking operation on wool socks), and boarding before pairing.

Wool socks are tumbled in steam heated dryers for about 15 minutes so the socks won't be too heavy and will be easier for boarders to handle, according to general manager, Mrs. C. W. Pharr, Jr.

The inspecting and pairing operations are performed simultaneously after boarding. In view of rigid governmental standards in this instance, these operations are critical. Therefore it is important to have conscientious operators. These operators are hired strictly on the basis of performance and attitude toward the work.

All inspection and pairing are done manually. Because the change from cotton to wool and back again has been found awkward at first, even for experienced operators, the pairers are kept on the same type of work.

INSPECTION and pairing are aided by using a 17" rule fastened to the table. One dozen cotton socks are laid down at a time for pairing. The heel of the sock is flipped over for a view of the opposite side (½ dozen pairs of wool socks are laid down at a time because they are heavier).

The second sock is paired with the first. If the two don't match they are held or put aside to match with others. The socks are laid out in the usual array whereby they are lapped for better visual matching of sizes and dimensions. Tolerances are close.

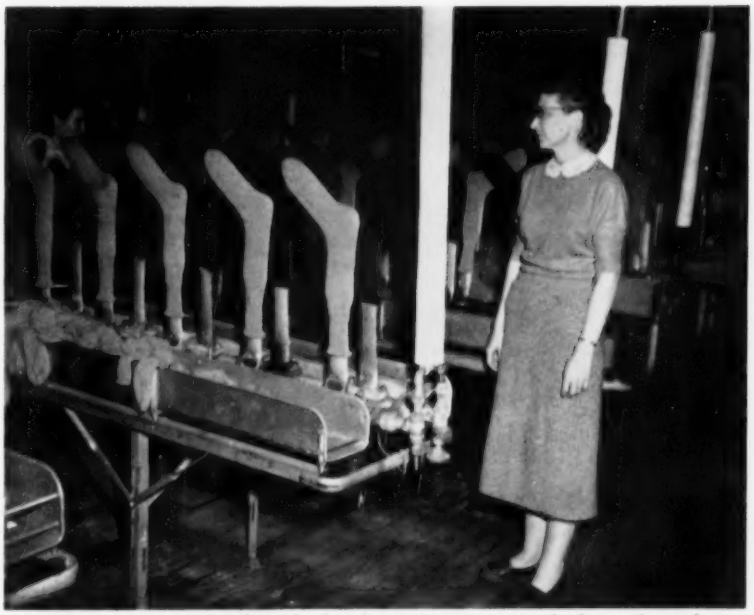
After inspection the socks are tied in bundles, each containing 10 pairs. Wool socks are baled 420 pairs to the bale: cotton socks are packed 100 pairs for shipping.

In this instance, rigid specifications must be met for government work. Socks are finished solely for the armed services in this plant, which has been doing the same type of work for 24 years.

Experience has shown the mill what the government demands in quality and uniformity.

Less than ¼ of 1% seconds are made in this plant's operations, and these defective goods are accounted for in faulty dyeing or soiling.

On cotton socks (black) the average production paired and inspected per eight hours is 300 dozen pairs. On wool O.D., because these socks are longer, bulkier, and require more handling than do cotton socks, the average production per eight hours is 250 dozen pairs.

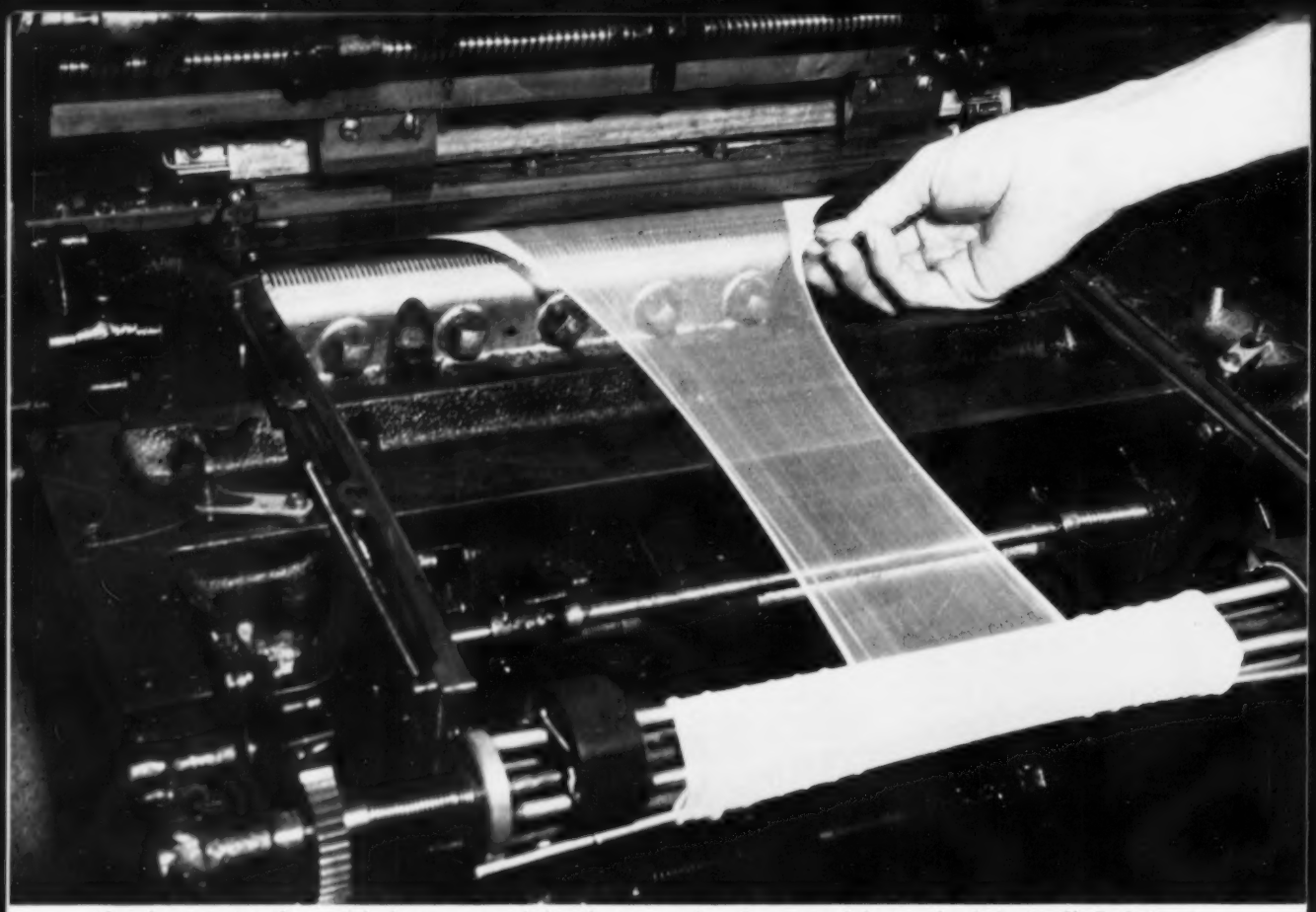


Following extraction, and before the boarding operation pictured above, the socks are tumbled in steam-heated dryers for about 15 minutes to reduce the weight to be handled by the boarders. Mrs. C. W. Pharr, Jr., general manager, observes boarding of both wool and cotton socks.

Because they are bulkier than the cotton socks, one-half dozen pairs of wool socks are laid down at a time for inspecting and pairing. To inspect the socks, the operators grasp a heel and flip the sock over. Note the 17" rule attached to the table.

Government inspectors provide an additional check (spot check basis) and provide an extra incentive for no mistakes or laxity on tolerances and quality. The pairers are the responsible judges in this regard.

Inspectors in this mill have been on the job an average of nine years each, thus attesting to the good operating policies and practices of the mill.



After the conversion, the round heel narrows around the selvage. By reducing the number of narrowing fingers to this point, the number of narrowing holes is reduced about 75%. Production increases, quality improves, and maintenance is lowered.

Single-unit full-fashioned machines at Chesterfield Hosiery make stockings with

genuine round heels and toes

Staff Prepared Exclusive

INCREASED popularity of round heel and toe construction in full-fashioned ladies' hosiery prompted Chesterfield Hosiery Mill, Chesterfield, S. C., to experiment and develop a method of making this construction on Wildman single-unit, single-section machines.

Experiments were successful in adapting the machines to this type of construction, and the change eliminated about 50% of normal needle breakage while making a genuine round heel and toe stocking.

The mill superintendent at Chesterfield stated that other conversions for this type of machine to make round heels actually made a variation of the pointed toe with the conversion; however, his conversion makes both round heel and toe.

John M. Welsh, superintendent at Chesterfield Hosiery Mill, devised the alterations and converted the machines to do the job. The changes made to the machines were as follows:

(1) Remove pointex cam assembly (see illustrations), dismantle, and saw off the hub.

(2) Put hub on opposite side of cam, and reassemble parts on opposite side from original.

(3) Install reversed cam assembly on knitting machine.

(4) Reset pointex stop to make heel without any pointex motion while making the heel.

(5) Remove control shaft cam and build up with weld to open shutters to rack narrowing fingers out on edge of selvage.

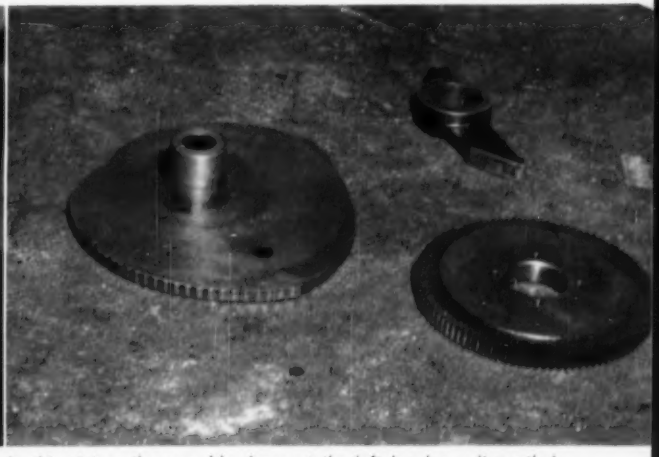
(6) Make appropriate alterations to pattern chain to make the round heel pattern.

On the round heel construction, production increased about one and one half dozen pairs for each knitter on each shift, machine maintenance is less due to lower needle breakage, overhead is lower, and the construction serves to

Before the machine changeover the gore heel with wide narrowings appeared as in the picture above. Note the numerous narrowing fingers, the heel construction, and the number of narrowing holes. The conversion brought, among other things, less needle breakage.

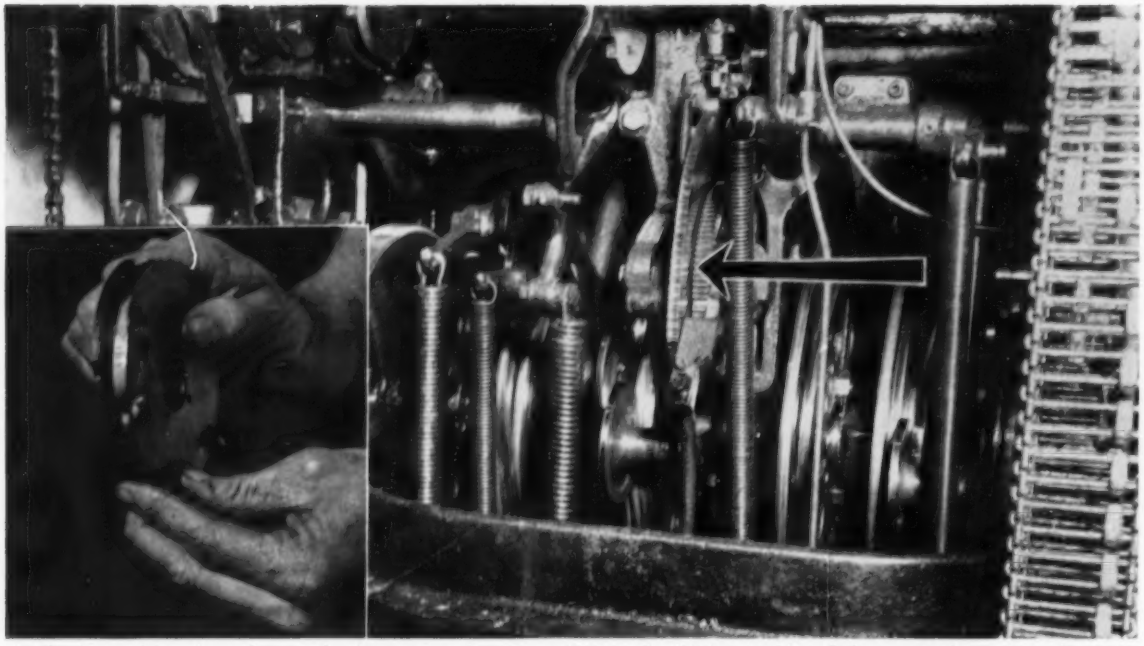
In the photograph above the pointex cam is shown in its normal working position. The cam is to be turned over.

Once dismantled, the cam is readied by removing the hub with saw.



In this picture the assembly shown at the left has been dismantled to prepare for the operation shown in left photo below.

Assemble the parts with the cam reversed. The unit is now ready.



In the large photo above the cam has been returned to its position in the knitting machine. Built-up control cam is in the inset.

fill current market demands. First quality percentage of production went up with the changeover because of fewer narrowing holes and less needle breakage which usually makes complete waste.

About five hours of one man's time is required to make the change on one machine. No special parts have to be purchased, and only a little welding is required to build up the control shaft cam slightly.

This mill has been making round heel construction for about three months and operates three shifts a day on a six-day week basis, the management stated.

Textile research conference set for July

■ That portion of this year's Gordon Research Conferences dealing with textiles is scheduled to be held at Colby Junior College, New London, N. H., during the period July 8-12. H. A. Secrist and E. I. Valko will serve as chairman and vice-chairman respectively, the announcement stated.

Following is a list of those who will lead the discussions on each of the five days, along with the subjects to be explored:

July 8

W. J. Hamburger—Yarn Torque and Its Implications in the Stability of Fabric.
E. I. Valko and *G. C. Tesoro*—Durable Finishing of Hydrophobic Textiles.

July 9

A. B. Thompson — Strain-induced Crystallization in Synthetic Fibers.
T. B. Lefferdink—Interpretation of Single Fiber Properties.

July 10

J. J. Press—The Development and Structure of Felted Materials.
C. Harmon—Non-woven Fabrics.

July 11

K. Weissenberg—Some New Phenomena in the Behavior of Visco-elastic Materials.
E. Pacsu and *R. F. Schwenker*—The Effect of Chemical Modification on the Flame- and Glow-resistance of Cotton Cellulose.

July 12

F. Fortess—Accelerant Dyeing Phenomena.

It is emphasized that the purpose of the program is not to review the known fields of chemistry, but primarily to bring participants up to date as to the latest developments, analyze the significance of these developments, and to provoke suggestions as to underlying theories and profitable methods of approach for making new progress.

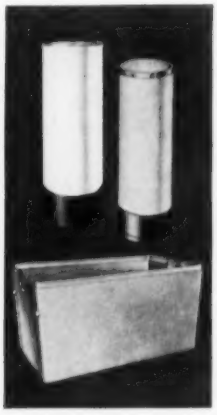
In order to protect individual rights and to promote discussion, it is an established rule that all information presented is not to be used without specific authorization of the individual making the contribution, whether in formal presentation or in discussion.

The first meeting of each Conference is held Monday morning at 9:00 a.m., Eastern Daylight Saving Time. The morning sessions, through Friday, are scheduled from 9:00 a.m. to 12:00 noon. The second session of each day is held in the evening from 7:30 to 10:00 p.m., Monday through Thursday. There are no Friday evening meetings.

Accommodations are available for a limited number of women to attend each Conference, also for wives who wish to accompany their husbands.

MAKESHIFT CONTAINERS RESULTED IN COSTLY DAMAGE at Barringer Knitting Mills, Philadelphia. Orlon sweaters went from mill to dye plant in paperboard cartons, which lasted only a few trips and often broke in transit. Result: pulled threads, smears of dirt, and the extra expense of dry cleaning or classifying items as "irregulars." Carton replacement was costly.

DELICATE FABRICS NOW TRAVEL SAFELY in Kennett "Knitwear Shippers." Barringer eliminated damage to knitted goods in transit when it switched from flimsy containers to strong, smooth, resilient Kennett boxes of National Vulcanized Fibre. These not only protect knitted goods from snags and soilage, but are also light in weight, easy to move and stack, last for years.

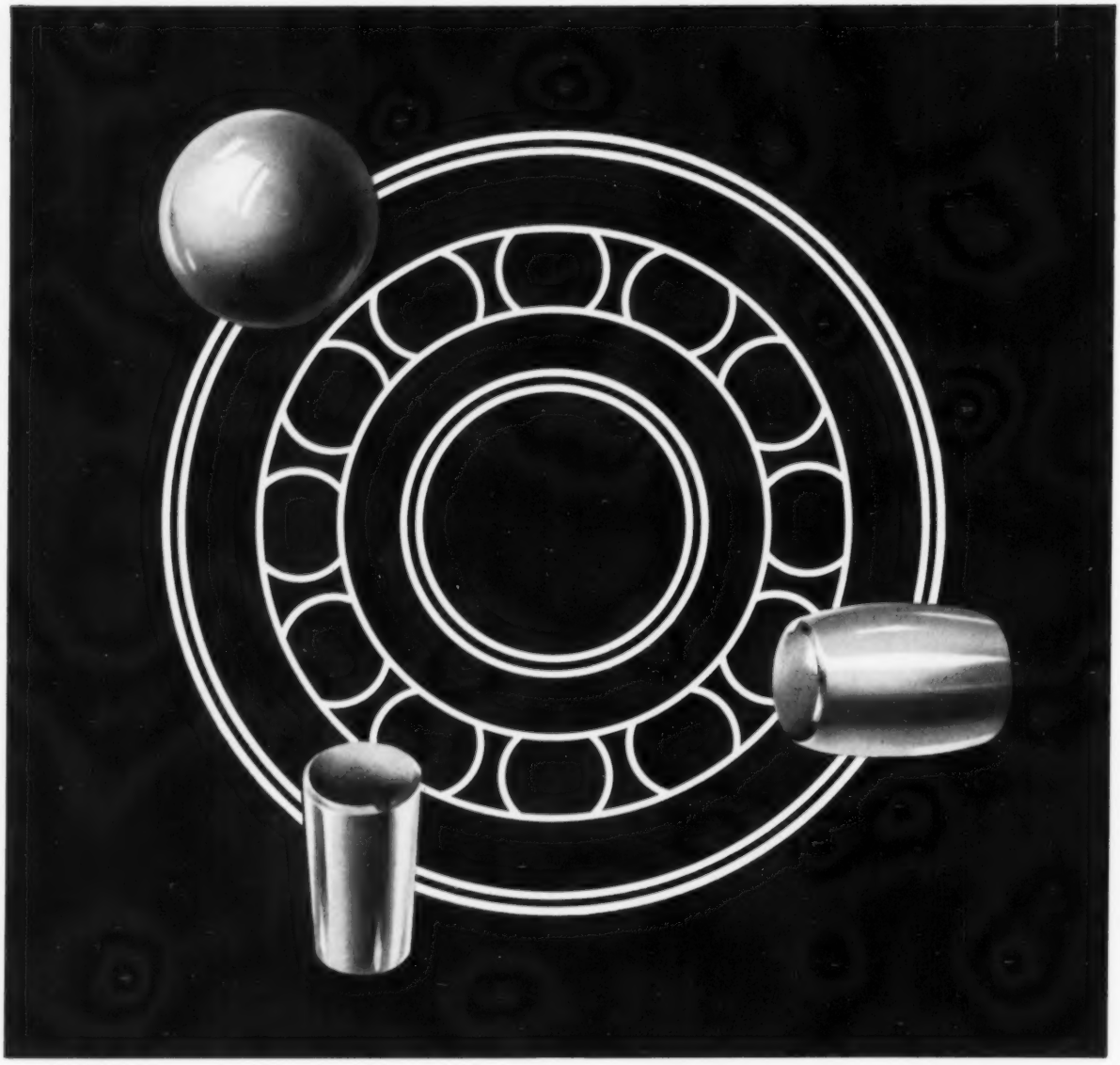


JOB-DESIGNED CONTAINERS FOR EVERY NEED can end your materials handling problems. Kennett Receptacles include Roving Cans, Doffing Trucks, Mill Boxes and Trays.

NATIONAL CAN HELP YOU CUT COSTS TWO WAYS. If your problem is *safety in materials handling*, Kennett Receptacles by National can end it. For National Vulcanized Fibre is bone hard, glossy smooth, resilient and long wearing—won't crack, dent or break—won't rust or corrode. If your problem is *speed and efficiency* in handling, National can solve that too. A National Materials Handling Specialist is always available to help you adapt the broad Kennett Line of containers to your exact need. Simply write for our folder—MATERIALS HANDLING FOR TEXTILE PLANTS, or ask to have him call.

NATIONAL
VULCANIZED FIBRE CO.
WILMINGTON 99, DELAWARE

In Canada:
NATIONAL FIBRE COMPANY OF CANADA, LTD., Toronto 3, Ontario



cut bearing maintenance . . . with one lubricant

Nebula EP – another first for Esso Research – is a multi-purpose grease that *out-performs* all other multi-purpose greases. And many specialized greases as well!

Nebula EP works exceptionally well in ball, tapered roller and roller bearings – of *all sizes* from rolling mills to precision instruments.

Nebula EP stands up under extreme heat. It retains its lubricating qualities at high temperatures at which many special heat-resistant greases would have broken down.

And Nebula EP has exceptional water-resistant and rust-preventive properties – an important consideration where water is a factor. What's more, Nebula EP is formulated with a true soap which gives it extra anti-wear and load-carrying characteristics – for an extra margin of protection. High oxidation stability gives Nebula EP longer life in storage and in use.

Nebula EP can be applied by *any* of the conventional methods. Get the whole story about this fine product . . . from your nearest Esso Standard Oil Company Division Office: Boston; Pelham, N. Y.; Elizabeth, N. J.; Bala-Cynwyd, Pa.; Baltimore; Richmond; Charlotte; Columbia, S. C.; Memphis; New Orleans.

FOR BETTER RESULTS

NEBULA EP

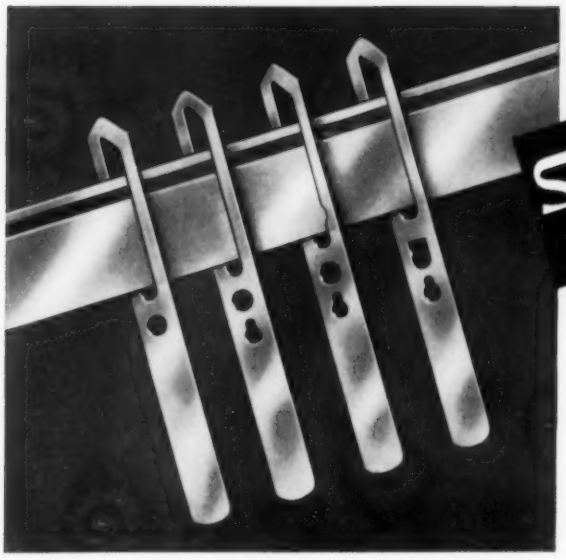
Esso

PETROLEUM PRODUCTS

Beware of

"Rusty" DROP WIRE!

He May Be Robbing YOU



Stehedco GALVANIZED DROP WIRES RESIST RUST!

Steel Heddle Mfg. Co. has the answer to your problem of rusty drop wires. STEHEDCO Galvanized Drop Wires resist rust much longer and are guaranteed to be as effective with electrical stop motions as coppered drop wires. They are highly recommended for cotton and spun yarn woven under high humidity conditions. Any sample can be duplicated; any type, any size.

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STEEL HEDDLE MFG. CO.
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Other Plants and Offices: Granby, Quebec, Canada—Lawrence, Mass.—Greensboro, N.C.—Atlanta, Ga.—Textile Supply Co., Dallas, Texas—Albert R. Breen, Chicago, Ill.

D-5711

Which fabric has the RHOPLEX backing?

Even 40 hours in a Fade-O-meter couldn't discolor or stiffen the backing of the automotive upholstery fabric sample at left. It's made with RHOPLEX resin! But the latex backing on the other sample became badly discolored and brittle after the same exposure to heat and light.

That's why RHOPLEX backing resins are being used more and more on automotive and furniture upholstery, carpets, and non-woven fabrics. The acrylic film not only resists aging, but also provides excellent bonding and curbs unraveling. And unlike latex, RHOPLEX backings need no curing. Write today to learn how RHOPLEX backings can improve your fabrics.

Chemicals for Industry

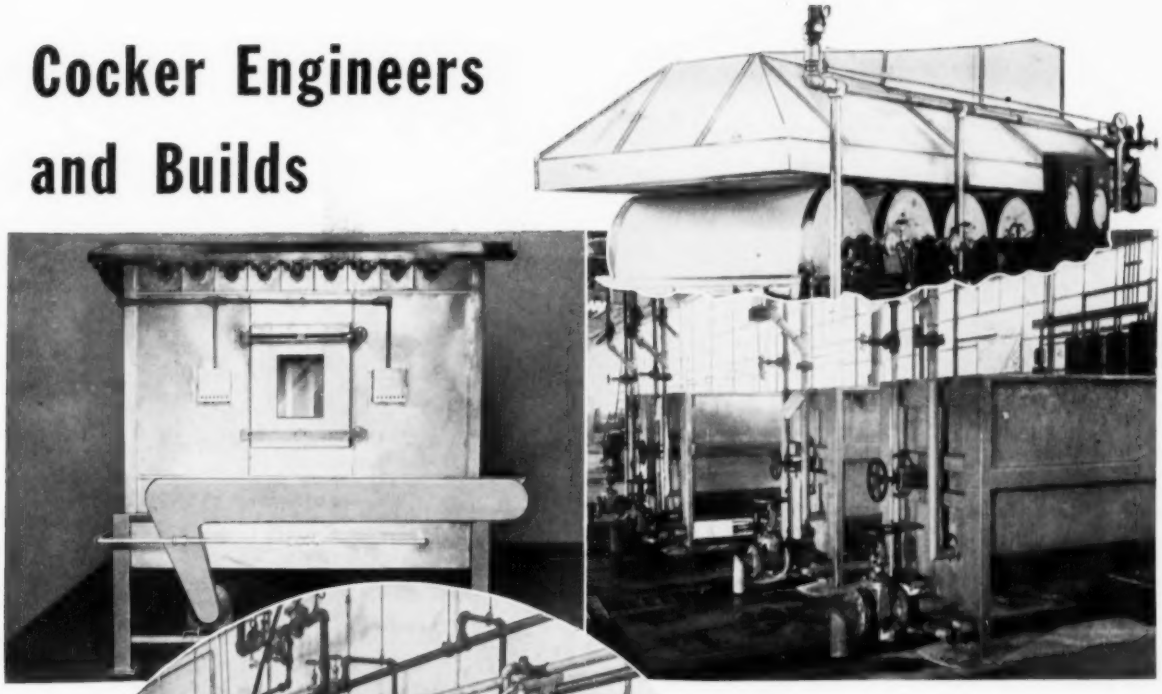
ROHM & HAAS COMPANY

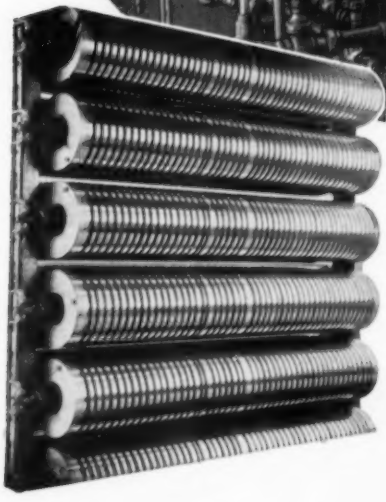
WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

RHOPLEX is a trade-mark, Reg. U.S. Pat. Off and in principal foreign countries.

Cocker Engineers and Builds





the Finest in Stainless Steel Equipment

Cocker's new, modern stainless steel plant, plus 40 years of engineering know-how, is your best guarantee of quality and efficiency. When you need any type of stainless steel equipment, always call on Cocker.

Cooking and Storage Kettles
Cloth Dye Boxes
Drying Ranges
Cylinders of all Types
Size Boxes
Warp Steam Chests
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Special Equipment

New England and Canadian Representatives:
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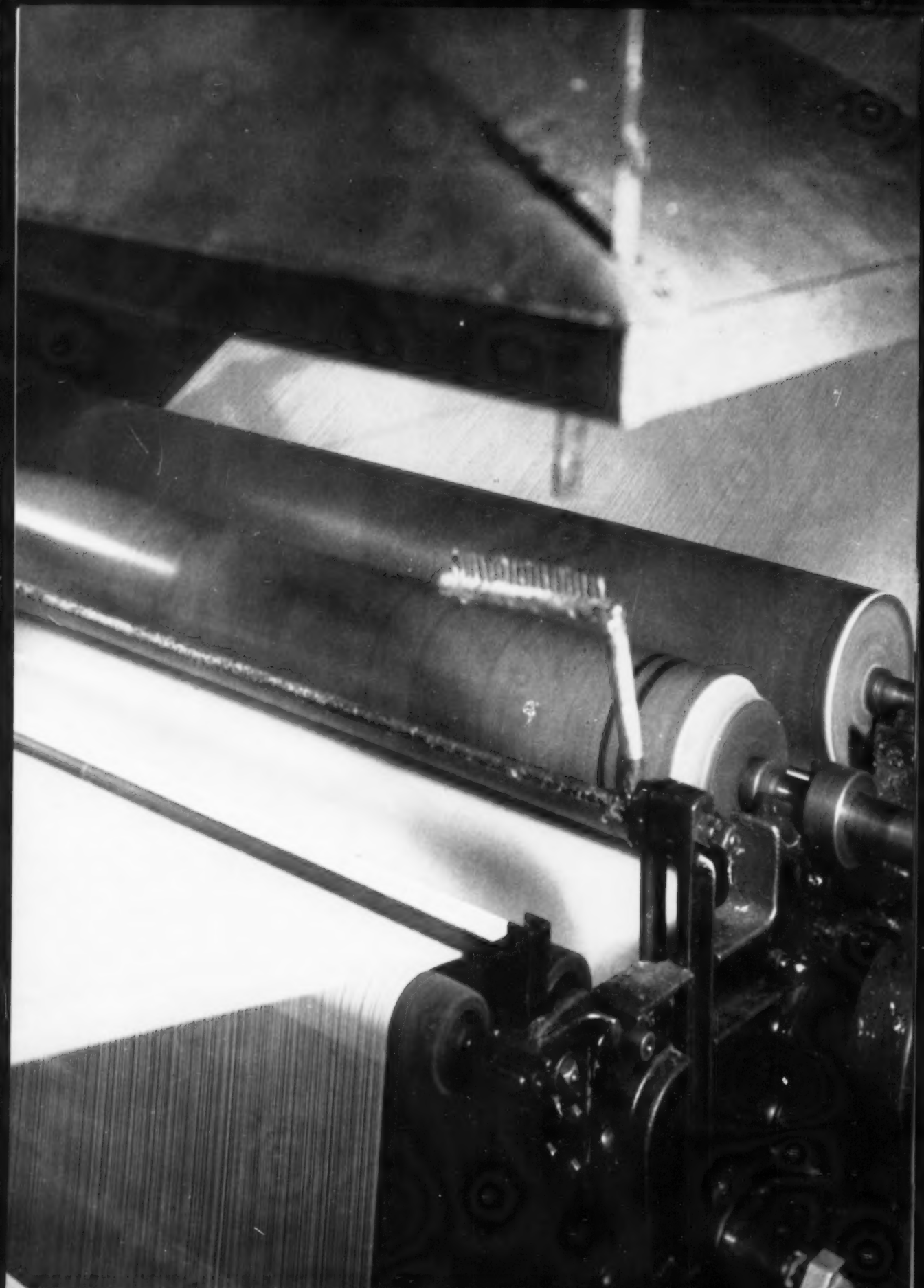
THE LEADER AROUND THE WORLD
COCKER Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT



Why Dayco Slasher Rolls

give faster, lower cost slashing

Mill after mill has increased slashing speeds, reduced costs and produced more uniformly sized warp yarns by using Dayco Thoro-Size Slasher Rolls in *both* front and back roll positions.

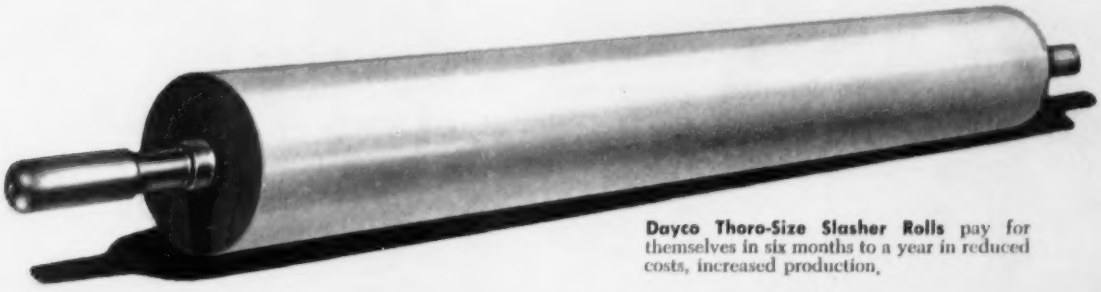
In test after actual test, Dayco Rolls proved they give more even size pick-up. That's because they're available in a finish to meet your exact sizing requirements.

Dayco Rolls meter size more accurately because they have the finish you need plus the "perfect cushion" provided by special synthetic Dayco compounds.

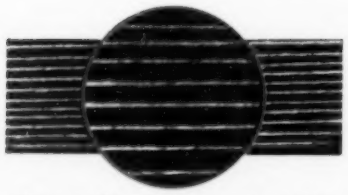
These two factors—improved size pick-up, and control of size within desired limits—permit most mills to increase slasher speeds remarkably . . . some as much as 40-45%.

Most important, Dayco Slasher Rolls eliminate the material costs, slasher downtime and labor required to maintain blankets. In addition, more precise metering of size results in considerable savings in starch costs. And, Dayco Slasher Rolls pay for themselves in reduced costs within six months to a year.

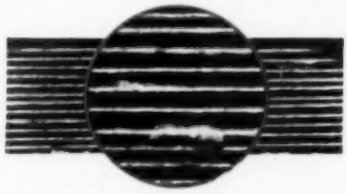
The result of more than eleven years of research, Dayco Thoro-Size Slasher Rolls are unaffected by oils or chemicals, retain their resiliency for long periods of time, and can be easily resurfaced for double and triple service life.



Dayco Thoro-Size Slasher Rolls pay for themselves in six months to a year in reduced costs, increased production.



Clean, uniform sizing proves superior performance of Dayco slasher rolls



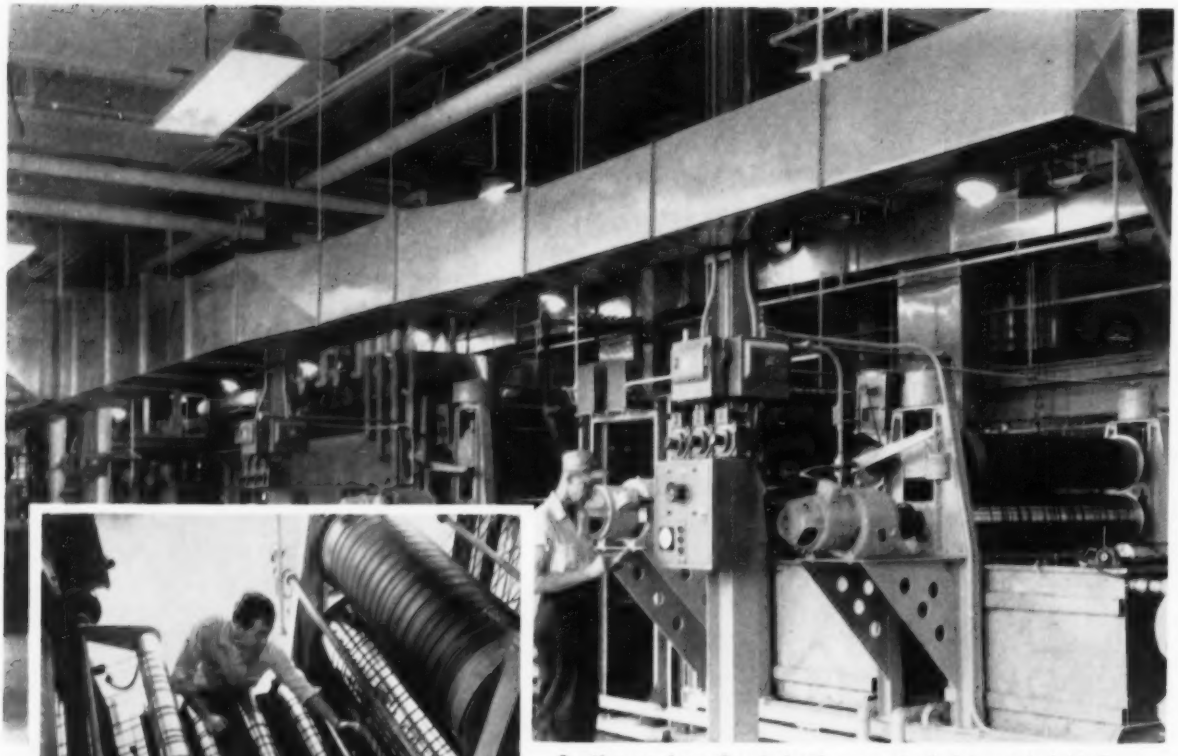
Irregular sizing denotes inadequate control of ordinary slasher rolls

Your Dayco representative will stop in to see you soon. Ask him for details on how Dayco Thoro-Size Slasher Rolls can help you step up slasher speeds, get more uniform yarn and cut maintenance costs. Or write The Dayton Rubber Co., Textile Division, 401 S. C. National Bank Building, Greenville, South Carolina.

© D.R. 1957

Dayton Rubber

Dayco and Thorobred Textile Products for Better Spinning and Weaving



Continuous dyer. Creel stands are out of picture at right. Two sets of 43 dry cans installed in pent houses machine.

In boil-out section, warp passes over Stainless rollers.

86 Stainless Steel dry cans are heated by 45 psi steam.

ONLY FIVE LIKE IT!

Continuous Machine designed for dyeing Denim Warp Yarns dyed with "Denivat Everblue"* and Denivat Everblack"* and most sulphur color shades.

This is a flexible machine of heavy construction having all parts in contact with liquids made of corrosion resistant, easy to clean STAINLESS STEEL.

May be converted for piece goods dyeing and processing by easily made, minor adjustments.

The Textile Shops

SPARTANBURG, S. C.

*Patented by Southern Dyestuff Corp.

NEUTRAL CYANINE GREEN GN EXTRA

C. I. 1078

For dyeing wool in union material where light and wash fastness are important.

For dyeing in combination with the neutral dyeing metal complex colors and chrome colors.

WOOL / NYLON / SYNTHETICS

Neutral · Acid · Metachrome
Top Chrome · Bottom Chrome

Reply to

ZINSSER & COMPANY, INC.
Hastings-On-Hudson 6, N. Y.

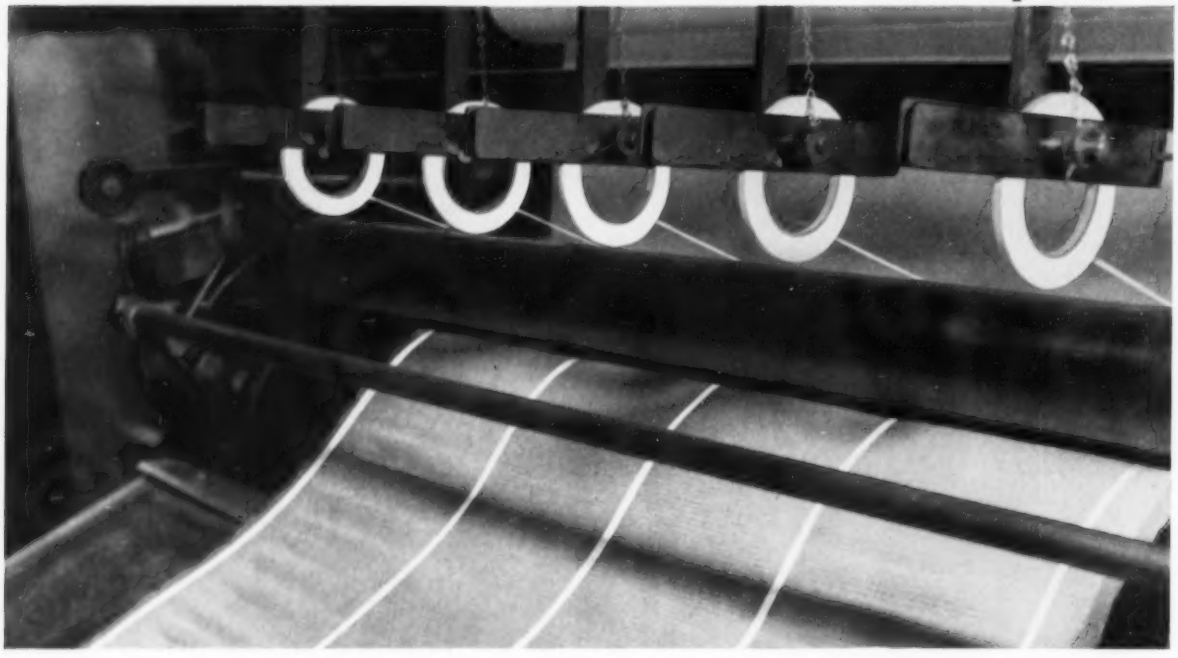
Subsidiary of

THE HARSHAW CHEMICAL CO.
Cleveland 6, Ohio

HARSHAW

ZINSSER

PERMANENT PLEATS—with tape!



Cotton cloth is permanently pleated more quickly, more economically than ever before. A continuous length of "SCOTCH" Brand Paper Tape does the job. Tape, applied direct to pleating tissue in several positions, effectively holds the pleats through the entire curing circle. Send for FREE manual illustrating this and 60 *other* cost-cutting applications – with tape. Write 3M Company, Department OU-47, St. Paul 6, Minn.

(See us at the Knitting Arts Exhibition in Atlantic City, April 29-May 3, Booth 28)

STARTING cloth on high-speed winder shells is a cleaner, neater job with "SCOTCH" Brand Double-Coated Tape No. 400. Adhesive on one side of tape sticks to shell. Adhesive on other side holds cloth without soiling or damage.

SEALING boxes and packaged textile goods takes a lot less time with a box sealer and "SCOTCH" Brand Cellophane Tape No. 600. Sealer quickly and cleanly applies a short strip of tape around side and bottom of telescope boxes. Easy!

IDENTIFYING contents of sliver and roving cans saves searching. "SCOTCH" Brand Cellophane Tape No. 600 or Acetate Fibre Tape No. 700 is supplied in 12 colors for quick color-coding. Tape sticks securely in place, yet removes easily when desired.

REG. U.S. PAT. OFF.

SCOTCH BRAND Pressure-Sensitive Tapes

For the Textile and Apparel Industries

PRODUCT OF 3M COMPANY RESEARCH

The term "SCOTCH" is a registered trademark of Minnesota Mining and Manufacturing Company, St. Paul 6, Minn. Export Sales Office: 99 Park Ave., New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario. © 3M Co. 1957.

SI

"... Si calls it sizing at the source ... saves a process at the mill ..."

Size at the source or size at the mill, large size order or small size order—your Seyco man is on the job to give you the benefit of our background of 52 years of experience in textile chemicals.

Call on him when you need him; call on him when you don't. Like a fire extinguisher, he's good to have around.

Warp Sizing: *Softeners, Binders, Penetrants, Ty-In Penetrants, Shuttle Dressing, Waxes.*

Wet Processing Chemicals and Auxiliaries: *Dye Assistants, Penetrants, Rewetting Agents, Sanforized Fabric Oils, Detergents, Scouring Agents, Softeners.*

Niagara Twist-Setter: *Yarn Conditioning Penetrants.*

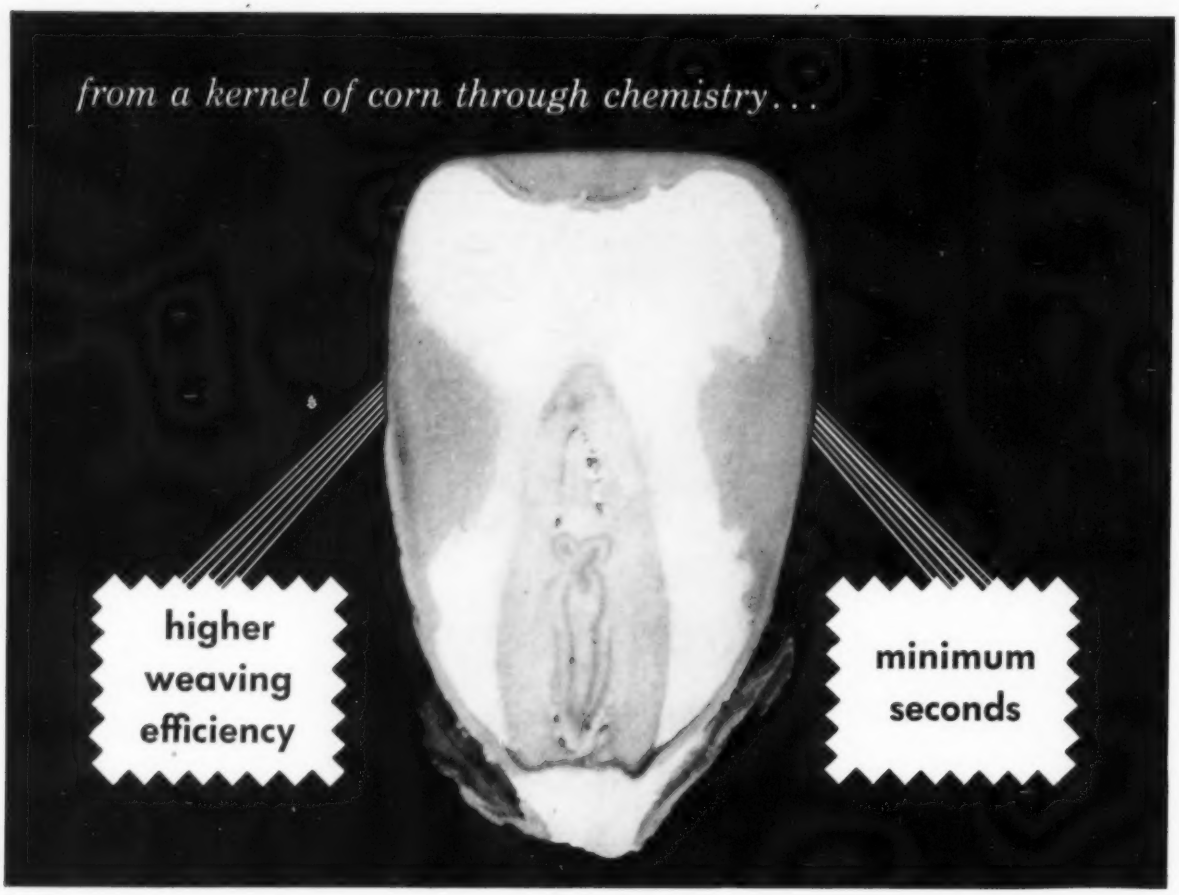
Seyco Warp Lubricator.

Headquarters for textile chemicals

SEYDEL-WOOLLEY & CO.

748 RICE STREET, ATLANTA, GEORGIA

SEYCO



NALEX®: a warp size for spun rayon and worsted yarns

NALEX is starch changed through chemistry. It is noncongealing. Because of this, Nalex improves penetration; prevents hard size; and forms stronger, more continuous films on spun rayon or worsted yarns.

The result?

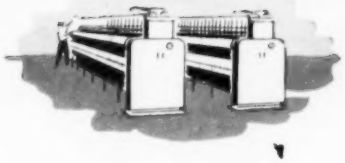
Seconds are reduced. Efficiency is increased—even at low humidities.

NALEX is compatible with resins and synthetic binders. Highly recommended for sizing the new blends of natural and miracle fibers.

STARCHES National RESYNS®

STARCH PRODUCTS INC.

National Starch Products Inc., 270 Madison Ave., New York 16, N. Y. • Atlanta • Boston • Philadelphia
In Canada: National Adhesives (Canada) Ltd., Montreal



"...Higher loom speeds made lubrication difficult!"

When a large Southern weaving plant recently had a problem in loom drive lubrication, Sinclair's Representative V. V. Motley, Jr. was asked for a recommendation. He reports:

"This plant had experienced difficulty in lubricating the gear trains that drive the looms. The reduction gears are shielded and the pinions rotate at about 1700 RPM. A grease could not be applied readily or satisfactorily; and, an oil did not provide the retention necessary for the desired lubrication period. In desperation, mixtures of oil and grease had been used in an attempt to lubricate the gears."

NEEDED: AN ADHESIVE OIL. Mr. Motley continues, "Having had experience with problems of this type, I recommended Sinclair DARTAC #15. I knew it would have the necessary body and adhesiveness needed to solve the problem. Trial runs at this plant were so successful that all four of the company's plants were switched to DARTAC" concludes Mr. Motley.

If you have a problem in textile lubrication, get the benefit of a Sinclair Representative's recommendation. Call a local Sinclair office or write to Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

SINCLAIR TEXTILE LUBRICANTS

Now

JACOBS

CASTEEL DOBBY CORDS

Give You These Great Improvements

Open End Cast right to wire core. Will not pull out. Eliminates "S" hooks. Also available with closed eye.

Nylon Braid Gives dobby cord a wearing surface that outlasts cotton by far. Available in No. 8 (8/32") and No. 7 (7/32") diameters.

Turnbuckle That Really Locks. Simplifies harness frame adjustment.

Jacobs Casteel and Wire-Reinforced Dobby Cords are also available with cotton-braided wearing surface, in No. 8 and No. 7 diameters.

BOOSTS EFFICIENCY

CUTS COSTS

The BULLARD CLARK Company

SOUTHERN DIVISION Charlotte, N. C.

JACOBS

NORTHERN DIVISION Danielson, Conn.

NEW EQUIPMENT PARADE

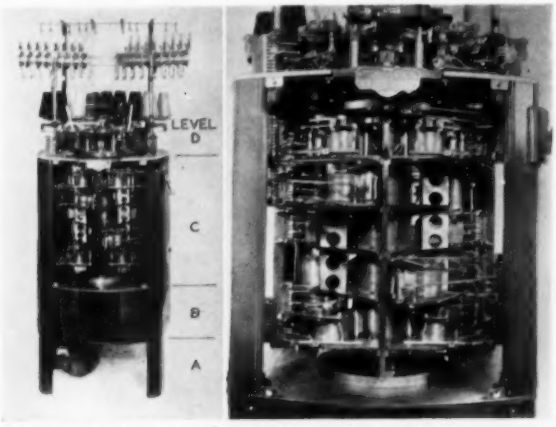
Machines and Equipment . . . Supplies and Services . . . Dyes and Chemicals . . . Books

Please note: Claims made in all of these announcements of new developments are of necessity based upon information furnished by the respective suppliers.—The Editors

Machine has new knitting approach

Commercial availability of the "Reading" CK-A multi-feed circular knitting machine for production of men's and boys' pattern socks has been announced. (Editor's note: This is the improved and mill-tested machine developed by B. F. Coile—see TI for October 1953, p. 125—of Keller Machine Co., Athens, Ga., now a wholly-owned subsidiary of Textile).

The machines operate at a continuous speed of 168 rpm during rotary knitting, and at 84 knitting strokes per



Operating parts of the CK-A knitter are located on five separate levels (left photo) to permit ease of assembly, adjustment, and maintenance in the mill. In the close-up photo at right the knitting cylinder and patterning mechanism may be seen. For an over-all view of this machine, refer to the Knitting Show preview in this issue.

minute during reciprocating knitting. From one to four feeds may be used in rotary or in reciprocating knitting to produce the various types of stockings within the range of the machine.

It is estimated that one knitter can take care of up to 16 of the 168-needle machines, and up to 12 of the 84-needle machines. It is also estimated that one machine fixer can take care of up to 50 machines once the necessary experience has been gained.

Several major departures from conventional circular knitting machine equipment currently in use for such manufacture, are embodied in this knitting machine. These include a new approach to the mechanics of knitting; increased pattern versatility; the ability to produce a wide range of types of hosiery using all types of natural and synthetic fibers; and rapid interchangeability of parts.

By the use of sub-assembly units for many parts of the machine (for example, the trick wheel selecting apparatus, the yarn fingers and their selecting drums, and the stitch cams) it is possible to replace damaged or worn units in the machine quickly while those removed are undergoing repair.

The machine has been designed with the operating parts at several separate "levels" to permit ease of assembly, adjustment, and maintenance in the field. This design provides ready access to all parts by the knitter or fixer, and makes possible the rapid interchange of spare pattern units for the change of patterns with a minimum of down time.

The primary control, throughout the knitting cycle, is the pattern chain which is provided with 24 lugs at predetermined points to index the right and left main pattern drums at 24 appropriate times for each stocking. The right and left main control drums, as they are indexed, control the rotary and reciprocating movements of the needle cylinder from the clutch drums at the bottom of the drum shafts.

These main drums also control the feeds for rotary knitting, binder mechanism, yarn selector drums, yarn tensioning devices, rubber inlay finger, stitch length changes, jack pressers, and the idling and racking of the trick wheels at each of the five sub-levels.

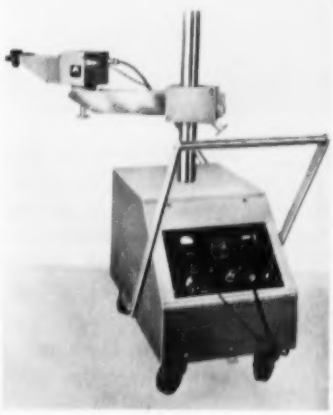
An unusual feature of the machine is the mechanism for knitting an improved suture line between adjacent pattern sections. An important built-in feature is the provision for changing needle count without changing the jack cylinder and related parts.

Textile Machine Works, Reading, Pa.

Do you want more data? Write ◆ or use card on page 223; list D-101

Spot defective yarn at the source

A compact, portable electronic instrument for inspecting, counting, and providing quantitative analysis of yarn defects in spinning, winding, twisting, spin - draw, and other operations is announced. Any defects over a predetermined size can be detected.



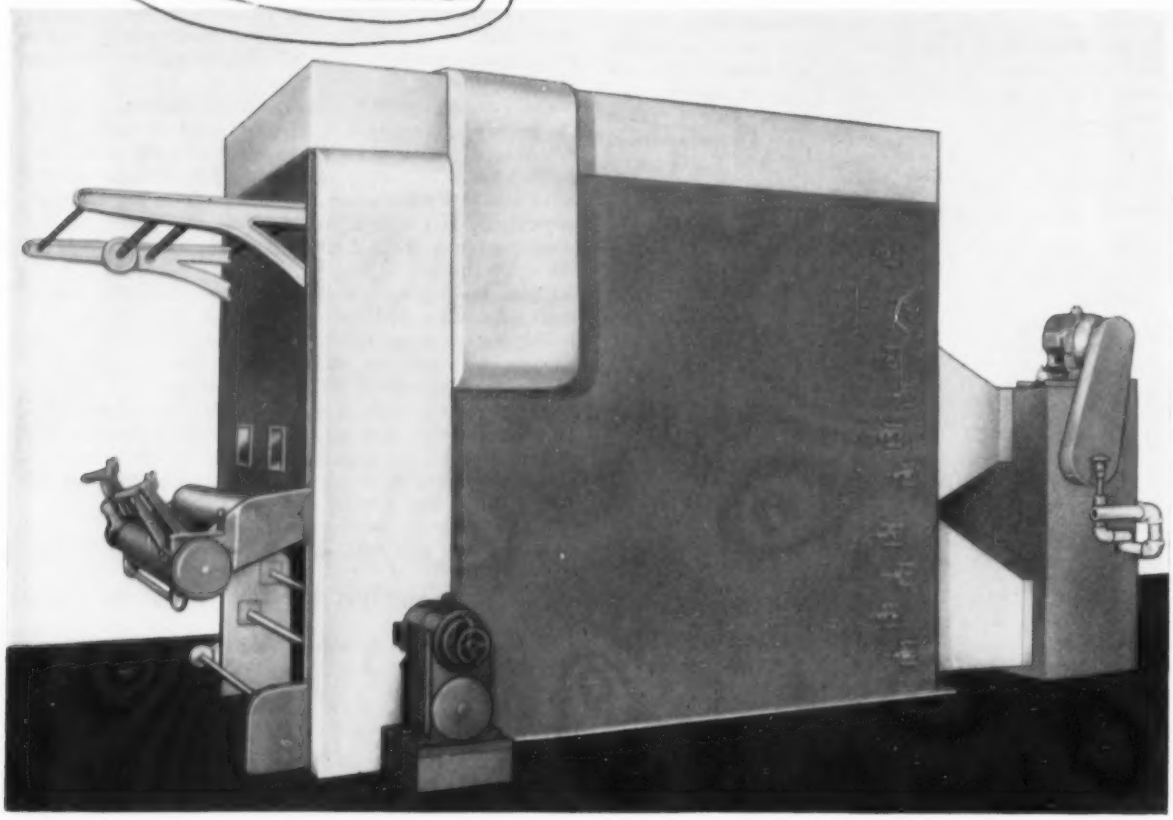
The new unit combines high accuracy with speed, convenience, and versatility. The equipment rolls quickly and easily into yarn inspection position without stopping, slowing or otherwise disturbing the yarn producing machine. It may be used in any operation where yarn is being packaged, twisted, spun or slubbed. No removal of bobbin, pirn, cone, cheese, etc., is involved.

With the Lindly Automatic Yarn Analyzer, it is not necessary to control temperature or humidity, or to precondition the yarn in any way.

Lindly & Co., Mineola, N. Y.

Do you want more data? Write ◆ or use card on page 223; list D-102

Shrink Your Textiles.....AND Your Costs!



Gessner's new Continuous Steam Sponging Machine has transformed textile sponging into a continually even, fast, economical operation — so fast in fact, that 25 yards of cloth per minute can be sponged and measured for yardage.

Evolved from six years of painstaking development, Gessner's new machine eliminates the problem of single roll winding, hit-or-miss manual tensioning, costly piece-by-piece handling, leaking cylinders and long cooling periods.

The Continuous Steam Sponging Machine — right now — is properly shrinking woolens, synthetics, blends and mixtures with almost unbelievable economy. May we talk more about it with you?

DAVID GESSNER COMPANY

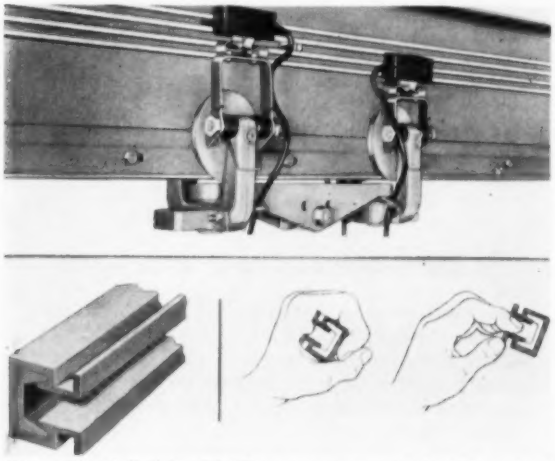
WORCESTER, MASS.

Canadian Representative: W. J. Westaway, Montreal, Quebec, Hamilton, Ont.

Gessner Improved Cloth Finishing Machines maintain a standard of performance to meet the exact requirements of your cloth finishing

Shielded monorail systems are shockless

By covering standard bus bar electrification with a specially designed polyvinyl chloride extrusion, completely safe electrified systems are produced. Under the name of



"Kant-Shock," this shielding prevents accidental contact with live bus bars. It is impossible for an adult's finger to enter the shield.

A new type sliding shoe collector provides a floating contact throughout an American MonoRail system, regardless of misalignment due to bent bars or at switches and interlocks.

The shielded electrification is mounted in stamped bracket assemblies for live power feed throughout the system at a maximum rating of 600 volts, 100 amps. It can be applied in the mill, where headroom permits, to existing systems.

The American MonoRail Co., 13107 Athens Ave., Cleveland, Ohio.

Do you want more data? Write ◆ or use card on page 223; list D-103

Spinning draft apron eliminates chatter

An improved drafting apron for spinning frames has been developed to assist in producing more uniform yarns by eliminating chattering or uneven operation of machines in both single and double apron systems.

Additionally, an improved inner surface stops lint collection: the exterior surface resists cracking and checking. The apron is produced in sizes to fit every spinning frame.

The Dayton Rubber Co., Dayton, Ohio.

Do you want more data? Write ◆ or use card on page 223; list D-104

Stronger take-up roll covering for rayon looms

A new take-up or pressure roll covering for silk or rayon looms has been developed by American Felt Co. After exhaustive testing, it has been established that the covering, called "Mek-Tex," is at least twice as strong as conventional materials available, and is uniform in quality and thickness, spotlessly white, and resilient.

The covering comes in 100-foot rolls, 3" wide. About 3½ yards will cover a 2½" diameter take-up roll on an average width loom.

Mechanical Felt & Textiles Co., Weehawken, N. J.

Do you want more data? Write ◆ or use card on page 223; list D-105

Card coilers with chain table drive

The outstanding features of a new line of card coilers are: ball bearing construction throughout, roller chain table drive, and quick and easy installation on any make of cotton card. The coilers are available for 16", 18", and 20" cans in heights of 36" and 42".

The base and head assemblies are mounted on a strong tubular steel stand. Both assemblies may be rotated to face in any direction desired.

Southern States Equipment Corp., Hampton, Ga.

Do you want more data? Write ◆ or use card on page 223; list D-106

How to eliminate horizontal streaks in knitgoods

The "Stitch-O-Meter," a new knitting machine accessory, will improve the quality of the cloth produced and the efficiency of operation of any knitting mill utilizing stationary yarnstand machines of any type or make.

The device enables the knitter to achieve exact stitch uniformity while a machine is in operation without the loss of production time. It functions by accurately measuring the speed at which the yarn is fed into each feed; and through use of a clear and legible indicator reading, it enables the operator to quickly set all knitting feeds exactly alike, thereby attaining precise stitch uniformity while the machine is in operation.

Since many yards of yarn are measured with the meter in a few seconds, and since each knitting feed can be set at the identical indicator reading, an exact stitch uniformity is achieved with speed and accuracy never before possible.

Use of the instrument, therefore, results in the production of perfectly uniform fabrics with horizontal streaks eliminated. It also permits the operator to check stitch counts on fabrics being knitted while the machine is in operation, merely by noting and calibrating the reading on the meter. The operator, by similar calibration, is able to make quick and constant checks on the weights of fabrics being knitted to insure uniformity of yield. Furthermore, use of the device results in production of cloth with less damages, since it eliminates all damages caused by misaligned settings.

Supreme Knitting Machine Co., Inc., 94-02 104th St., Ozone Park 16, N. Y.

Do you want more data? Write ◆ or use card on page 223; list D-107

Edge uncurler for warp-knit fabrics

An edge uncurler developed for warp-knit fabrics supplements a photoelectric scanner which electronically inspects fabrics coming off knitting machines and halts operations when any irregularities are noted.

The uncurler broadens the inspection range of the scanner to outer fabric edges, which had not been here-

tofore possible because of edge curling. Efficiency of the stop-motion scanner is thus increased and defects are held to a further minimum. In addition, economies are realized in subsequent dyeing and finishing, since the fabric edge is set while free from curl.

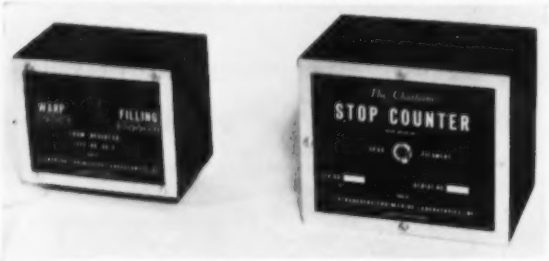
The edge uncurler is available to knitters for operation on a royalty-free basis by Celanese Corp. of America, the firm which also holds patents on the scanner.

Photobell Sales Corp., 43 Vesey St., New York, N. Y.

Do you want more data? Write ◆ or use card on page 223; list D-108

Counters for loom warp and filling stops

The Chatham loom stop counter (see TEXTILE INDUSTRIES for March 1957, p. 94) is now commercially available. The system is designed to register warp and filling



The counter mechanism which is mounted on the loom arch is shown at left; right, box containing "brain" of the system.

stops numerically and separately, to operate on both spun and filament yarn, and to provide both instantaneous and delayed stop action. The latter action is used on "sagging" warps such as terry.

The system consists of a box containing three relays and a selector with appropriate circuits to stop the loom and record the stop on the counter. The counter (mechanism by Veeder-Root, Inc.) is mounted on the loom arch, and when stopped, is de-energized and cannot be tripped manually.

The signals originate in the loom filling and warp stop motions, and then are transmitted through the relays, the selector, and into the counter.

Strandberg Engineering Laboratories, Inc., Greensboro, N. C.

Do you want more data? Write ◆ or use card on page 223; list D-109

F-F hosiery control system is faster, more accurate

Now available to full-fashioned hosiery mills is the Volumet Hosiery Control System that utilizes the Volumet hosiery testing device which was specifically designed for testing hosiery in the grey but can also be used for making volumetric measurement of finished hosiery.

According to Joseph C. Cobert who developed the system, the device speeds up the testing operation and is much more accurate than other systems because the entire stocking is under test. It eliminates the necessity for processing test sets through boarding and flat measurement to determine foot size, heel and over-all length. Of course, Mr. Cobert said, a few of such tests must be made to establish standards at the start, but thereafter it is only necessary to process just enough to ascertain that the

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standards are doing the job. The Volumet will save considerable money in labor and, at the same time, provide the means for more accurate control of fitting quality as well as of uniformity in flat length measurement.

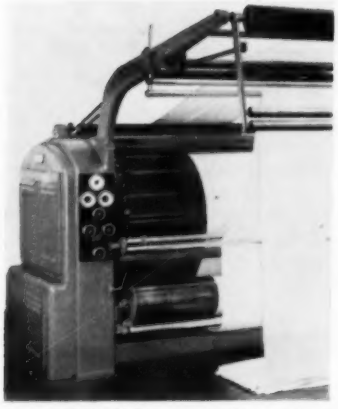
The Volumet has a telescoping, spring pressured toe mounted on an expandable leg frame. It is equipped with three separate rules to permit measurement of foot size, heel, and over-all length, as well as welt dimensions, all in a single operation. The machine will measure plain or stretch hosiery in every size from 8 to 11½ and in any width or length. A set of 30 stockings can be measured and the results recorded in 11 minutes. The machine is portable.

Included with the system, which is sold outright, are: The Volumet, a 40-page instruction manual, printed forms for recording grey and finished results, a filing device that permits easy maintenance of testing standards, and a measuring mat for accurately and rapidly measuring the flat length of finished hosiery.

Joseph C. Cobert Associates, 90 Glendale Ave., Concord, N. C.

Do you want more data? Write ◆ or use card on page 223; list D-110

Napper offers speeds up to 50 ypm



Cloth speed and napping effect are synchronized, and napping effect is automatically maintained when cloth speed is changed on a high-production napper developed by A. Monforts Maschinenfabrik, M. Gladbach, Western Germany.

The machine can be operated at stepless variable cloth speeds up to 50 ypm. Infinitely variable settings can be quickly and easily made and accurately controlled on indicators.

The machine has 30 napping rolls which are gear driven. Each roll can be removed in two minutes, leaving journals, bearings, and gears on the machine.

The napper is built as a single machine or in tandem—2, 4, or more units to nap the same side of cloth in several subsequent runs, or both sides at the same time with continuous flow of materials.

Cocker Machine and Foundry Co., Gastonia, N. C.

Do you want more data? Write ◆ or use card on page 223; list D-111

Finish keeps sweaters from pilling

A new finish, UT-Formula, makes sweaters and other garments made of Orlon and Acrilan permanently pill-resistant.

In a series of tests conducted by the manufacturer of

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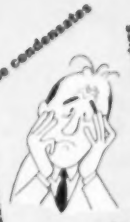

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the compound, sweaters finished with the formula showed that pilling was reduced by over 300% compared to those finished by conventional methods. The formula adds weight to the garment.

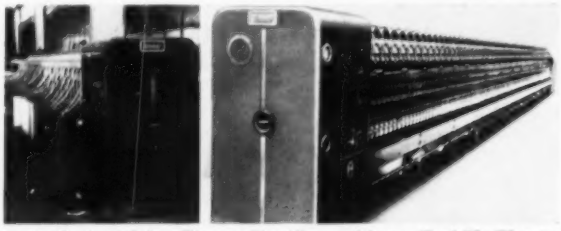
Universal Dye Works, Inc., Wissinoming and Friendship Sts., Philadelphia, Pa.

Do you want more data? Write ◆ or use card on page 223; list D-112

Frame for direct spinning of coarse yarns

Especially advantageous for the direct spinning of very coarse cotton yarns from drawing sliver made of comber noils and other cotton waste, as well as conventional cotton mixes, is a one-sided spinning frame which is built to accommodate sliver cans with an inside diameter of either 15" or 16".

Called the Zinser can spinning frame, Type 5RM, it is



manufactured by Zinser Textilemachinen GmbH, Ebersbach Fils, Western Germany, and is available through a U. S. agent.

The drafting system is a five-roll type (capable of spinning from drawing sliver yarns ranging from 4s to 12s) with roller stands in the form of roller bearings. The frame is equipped with Thoma suction cleaning, and utilizes gear-driven spindles made by Hispano Suiza. A flat belt drive is self-tightening through the use of a swinging device.

The ring rail may be positioned at each start-up by "cranking" the cam of the builder motion until it is positioned to traverse the ring rail downward. Thus, when the frame is started the balloon is drawn to the bobbin and is held under control until the draft motion begins to move. A centrifugal clutch delays the start of the drafting motion for 1-1½ seconds after the frame is started to prevent "looping." A foot brake is provided to permit one to stop the frame quickly after the desired "wrap" is given the package as the rail is lowered for doffing.

Each spindle is provided with two ring separators, one on top of the other, for greater support of the balloon. The ring rail and the thread guide movements are completely covered, and run on ball bearings without play.

Wat-Des Corp., 220 West Fourth St., Charlotte, N. C.

Do you want more data? Write ◆ or use card on page 223; list D-113

New ways to dye Orlon tow and yarn

Patterned or multi-colored sweaters can be practically knit from tow-dyed Orlon which provides the lofty hand of piece-dyed Hi-Bulk Orlon garments. The system uses the principle of dyeing the Orlon tow in the wound form on a specially designed core. The tow, after being dyed and dried, is rewound onto a spool for shipment rather than being "snaked" into cartons. The tow from these spools is fed directly to the Turbo Stapler or Pacific Converter. Because uniform tension is maintained when rewinding from dye core to spool, the running qualities of the dyed tow are improved.

Another means of making possible the production of

yarn-dyed Orlon sweaters is the development of a special process method of dyeing Hi-Bulk Orlon yarn. This process produces a yarn with loft and bulk which previously was achieved only by skein dyeing.

The greatest advantage to the knitter is the elimination of size variation which often occurs when sweaters are dyed after knitting; whether solid colors or patterns are involved, the garment can be knit to size and then steamed only, thus eliminating the tumbling operation. If tumbling is used in addition to steaming, there is no change in the resultant size of the sweater.

Where patterned work is involved, a further advantage lies in the fact that it is not necessary to carry a large stock of colored yarn. Because the knitter has need only to purchase natural yarn, and because delivery of the dyed yarn is shortened by several weeks, the necessity of ordering colors far in advance of seasonal requirements is eliminated. The process makes it possible to produce a limitless number of shades.

Franklin Process Co., Providence, R. I.

Do you want more data? Write or use card on page 223; list D-114

Napper improves finish of simulated fur fabrics

A new high pile napper has been perfected and placed on the market, having been thoroughly tested on looped knitted fabrics such as are being produced by some simulated fur fabric manufacturers.

The napper has proved very successful on synthetic blends as well as as blends of wool and cotton mixed with synthetic fibers used for linings and other purposes. Both low and high pile goods showed a far more even surface

on the finished fabrics, resulting from the breaking and raising of a far greater proportion of the loops in the knitted fabric than has been possible up to this time. On some fabrics, it was found that one run through the new napper produced better results than several runs through machines previously used for this purpose, thus cutting operational costs considerably.

The high pile napper is comprised of various types of rolls, such as friction, spreader, and hold-back which, in proper combination, keep the goods under complete con-

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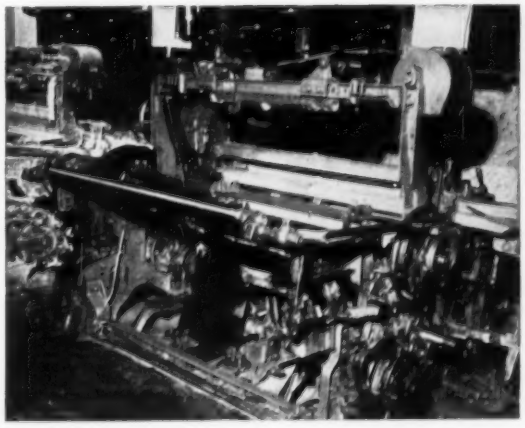

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trol as they are being napped by a large napping cylinder. Special quick-set adjustments, both vertical and horizontal, make it possible to nap at any desired depth. Settings for the napping process are made with a numbered dial, which permits identical napping results when the same fabric is run again.

The napper is safety-encased in modern protective steel covers, and the exhaust outlets are furnished so that they may be connected into a mill's present exhaust system.

Curtis & Marble Co., 72 Cambridge St., Worcester 3, Mass.

Do you want more data? Write ◆ or use card on page 223; list D-115

Equipment briefs

A powder-actuated stud driver, the "Mighty-Mite" Model 456, is designed specifically for jobs calling for low-volume fastening output. The tool offers ample means of fastening wood to metal, or wood and metal to concrete. Containing three simple parts, and weighing only 3¾ lb, the driver uses a 22-caliber charge which is exploded by a hammer blow against the firing pin. Equipped with safety features, the driver can be powered by powder charges of different strengths to give the operator a range of selection for varying job requirements.

Remington Arms Co., Inc., Bridgeport, Conn.

Do you want more data? Write Supplier or use card on page 223; list D-201

A hand-held tape tension meter can be of service to manufacturers and users of narrow fabrics, ribbons, carton tape, etc. Measurements are made by pressing the trigger, inserting the tape, and then reading the tension upon release of the trigger. Range: 0-1000 grams, with great resolution in the range of 0-250 grams.

Tensitron, Inc., Harvard, Mass.

Do you want more data? Write Supplier or use card on page 223; list D-202

An electric power sweeper which works an eight-hour shift without recharging, uses two electric motors — one powers the vehicle, and one powers the brush and dust control systems. The machine, which sweeps up to 70,000 sq ft of open floor per hour, is recharged by plugging into any 110-volt outlet.

Wayne Mfg. Co., 1275 E. Lexington St., Pomona, Calif.

Do you want more data? Write Supplier or use card on page 223; list D-203

A bearing tester, which resembles a screwdriver connected to a radio, can be used to detect and measure wear in bearings, gears, spindles, or slides without disassembly of machinery. The instrument consists of a metal probe, or pickup, connected by electric cord to a compact electronic amplifier equipped with calibrated meter, loudspeaker, controls; and if desired, with devices for making permanent records. Its power supply is any convenient electric outlet.

Sperry Products, Inc., Danbury, Conn.

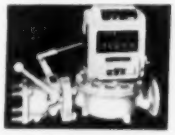
Do you want more data? Write Supplier or use card on page 223; list D-204

An impact fastening tool requires no powder charge for driving fasteners, but uses a hammer instead. By sup-

porting the fasteners in the bore of the tool while they are driven by hammer blows on the anvil rod, it is possible to drive pins and threaded studs into materials too hard for unsupported nails, studs, etc. The tool fits into the construction scene between the hammer-and-nail jobs and those jobs requiring powder actuated driving. Called Shure-Set, the fastening tool is equipped with a leveling plate which is removed for setting fasteners in channels, corners, etc.

Ramset Fastening System, Olin Mathieson Chemical Corp., 12117 Berea Rd., Cleveland 11, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-205



A liquid batching meter, the Neptune Repeating Auto-Stop delivers the same quantity of liquid each time the valve is opened, and shuts off automatically when the preset quantity is reached. Quantity settings are changed by pressing a button. Recommended for production batching and blending operations where the same formula is used over and over again, the meter handles a long list of liquids from water to expensive chemicals.

Neptune Meter Co., 19 West 50th St., New York 20, N.Y.

Do you want more data? Write Supplier or use card on page 223; list D-206

Galvanized oil and gasoline filler cans for general industrial use feature seamless-drawn, dome-shaped shells with double-seamed bottoms, and no top or side seams. No water or dirt can settle on the top. The cans are made of 26-gauge galvanized steel to withstand rough usage.

Eagle Mfg. Co., 2973 Charles St., Wellsburg, W. Va.

Do you want more data? Write Supplier or use card on page 223; list D-207

A dehumidifying compound for removing dampness and preventing rust, corrosion, and mildew in all types of buildings, called "Hum-I-Dry," absorbs up to 10 times its own weight in water and requires no baking out. The compound is suspended in a bag on a wire frame above a drainage drip pail.

Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-208

An aerosol degreaser, "Zipp," is packaged in a spray can for easy application of the cleaner to surfaces contaminated with oil or grease. Noncorrosive and nonflammable, the cleaner is safe (does not short) for electrical equipment and painted surfaces. It leaves no film or vapor, and can be ragged off or rinsed off in running water where this is practical.

Stewart-Hall Chemical Corp., P. O. Box 66 Fleetwood Station, Mount Vernon, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-209

A new multi-purpose grease with an improved lithium base engineered to meet nearly all industrial lubrication requirements is designed to provide superior lubrication under conditions which often require a variety of special greases. The grease retains its lubricating qualities under both high and low temperatures, under exposure to water, under high speed bearing action, and under long storage.

Gulf Oil Corp., Gulf Bldg., Pittsburgh 30, Pa.

Do you want more data? Write Supplier or use card on page 223; list D-210

A heavy-duty pipe cutter equipped with wide rolls to maintain a perfect right angle to revolving pipe, gives perfect tracking and straight cuts. A large screw handle

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assures easier cutting adjustment for hand or power use. Designated No 202 Wide-Roll Cutter, the unit has an extended shank to protect the threads against damage from power drive support bar.

The Ridge Tool Co., Elyria, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-211

A steel hardening compound which hardens from the surface inward by a carburizing, nitriding, and alloying effect, often provides, in addition to hardening, an increase of tensile strength throughout the steel. Designated Chromelloy, the compound can be used for hardening a wide variety of steels for production and maintenance tools, as well as for the hardening of production pieces. Application of the non-toxic compound can be made in about five minutes.

U. S. Metallurgical Labs., Div. of General Power Services, 381 Fourth Ave., New York 16, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-212

A nonionic softener, Sonofin C, is 100% active and is recommended for use with resin and starch finishes on cottons, rayons, and synthetics. The product has high stability, excellent resistance to oxidation and discoloration at elevated temperatures, and freedom from any effect on light fastness of dyes.

L. Sonneborn Sons, Inc., Textile Chemicals Div., 300 Fourth Ave., New York 10, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-213

A quick release nipple for rotary pressure joints on dry cans, slashers, calenders, and similar machines, greatly simplifies the task of connecting the joints which admit steam or liquids under pressure to rotating drums, cans, etc. Called the "Q" nipple, it can be quickly installed or removed with a simple wrench.

Johnson Corp., Three Rivers, Mich.

Do you want more data? Write Supplier or use card on page 223; list D-214

A fast-acting leak-stopper can be made of ordinary cement by the addition of "Flextite." The compound controls the setting time of Portland cement, making it possible to stop leaks almost instantly in concrete, masonry, or brick surfaces. Additionally it may be used as a water-resistant plaster coat that seals off seepage and excludes moisture, and for pointing up spalled areas, etc.

Flexrock Co., 3653 Cuthbert St., Philadelphia, Pa.

Do you want more data? Write Supplier or use card on page 223; list D-215

"Package" cable conveyor systems featuring standardized floor-mounted supports (for use in areas of weak, high, or cluttered roofs) are "tailored" to provide easily a cable conveyor system to fit particular requirements and conditions. In most cases the installation is so simple that a plant's own maintenance force can erect the conveyor in a relatively short time without need for engineering, scheduling of erection, and the lengthy downtime.

Tipp Mfg. Co., Tipp City, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-216

A wetting agent and detergent, Triton CF-21, nonionic and 100% active, has unusually low foaming properties and is recommended especially as a penetrant in desizing baths, a detergent and penetrant for continuous boil-off, as well as for use in pigment padding of vats or pigments

and in dyeing direct, basic, and dispersed colors.

Rohm & Haas Co., Washington Square, Philadelphia 5, Pa.

Do you want more data? Write Supplier or use card on page 223; list D-217

One-shot lubrication is performed by the Type L lubricator for textile machines, light lathes, and other types of equipment requiring closely controlled but infrequent oiling. Pulling up a button or pressing down a lever fills a cylinder with a predetermined amount of oil which is forced out of the cylinder into the distribution system by spring pressure.

Bijur Lubricating Corp., Rochelle Park, N. J.

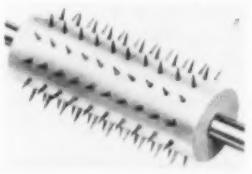
Do you want more data? Write Supplier or use card on page 223; list D-218

A "universal" cationic softener, Ahcovel X57, performs effectively on all synthetic and natural fibers, and is of considerable merit in both pure and resin finishes. On hydrophobic fibers the softener shows anti-static properties. Characteristics: ease of solubility in warm (120 F) water, high degree of substantivity, low foaming properties, compatibility with most resin catalysts, and excellent softening. The product does not decrease tear strength, contribute to chlorine retention damage, or lower crease resistance.

Arnold Hoffman & Co., Inc., Providence, R. I.

Do you want more data? Write Supplier or use card on page 223; list D-219

Pinned rolls or bars, with pins spaced closer together than ever before, are available in various shapes and lengths. The closer spacing allows textile materials to be penetrated with a greater number of smaller holes in a smaller area. Rolls for wet or dry, hot or cold applications, and in all diameters, are available in various lengths up to 24'. A repinning service is also available.



Robert A. Main & Sons, Inc., 257 Pascack Rd., Paramus, N. J.

Do you want more data? Write Supplier or use card on page 223; list D-220

"Tanastic" flat drive belts are made with a plastic layer sandwiched between two layers of leather. For capacities up to and exceeding 500 hp, and to operate at speeds up to 10,000 rpm, the belts can be made endless. They remain elastic—will not stretch permanently—and will operate in temperatures from -20 to 160 F. Rarely requiring dressing, the belts operate efficiently for the life of the drive without tension adjustment, and are little affected by machine oil or moisture.

J. E. Rhoads & Sons, P. O. Box 71, Wilmington, Del.

Do you want more data? Write Supplier or use card on page 223; list D-221

Recording up to 16 points on one chart is done by the Series 8000 Wheelco Electronic Multipoint Recorder on an easy-to-read, easy-to-operate, and easy-to-service unit. Measurements may be obtained with sensing units such as thermocouples, radiation detectors, and other devices where the measured variable can be resolved into an electrical signal. Up to six limit switches may be incorporated to provide for high and/or low signal indication. Up to four switches may have common front set; additional switches are independently adjustable.

The Barber-Colman Co., 1300 Rock St., Rockford, Ill.

Do you want more data? Write Supplier or use card on page 223; list D-222

Chemigum 247 is a medium acrylonitrile latex developed to give improved resistance to discoloration on

The Laurel Leaf

BUSINESS MAGAZINE EDITION

Laurel HYDROCOP and 3B SOFTENER have long been recognized as the leaders in the field of knitting yarn conditioning and lubrication. If you have not tried them on your yarns, check these advantages to see how you can achieve that "something extra" which will put your yarns well up in front in the sales parade:

Laurel HYDROCOP and 3B SOFTENER

. . .lubricate the yarn and insure smooth running and even stitches with a resulting better garment.

. . . give a softer, better cone which reduces the number of pulls and sloughs off the cones.

. . . condition the yarn which results in a stronger yarn with less breaks.

. . . provide equally satisfactory results on natural, bleached or dyed yarns.

. . . cause no odor or color changes, and need not be scoured out of the goods.

. . . provide excellent results on all natural, synthetic and blended spun yarns (particularly cotton, wool, worsted, Cashmere and Orlon).

. . . are readily removed from the cloth in a regular scour or boil-off and will not interfere with any subsequent dyeing, bleaching or finishing process.

. . . are easily prepared for use and form stable emulsions which are applied to the yarn from emulsion troughs or any standard coning or winding machine.

Why not put these advantages to work for YOU? Write us today for generous samples and detailed working instructions. Our experienced representatives are also available to discuss your specific problems.

Write TODAY while you think of it.

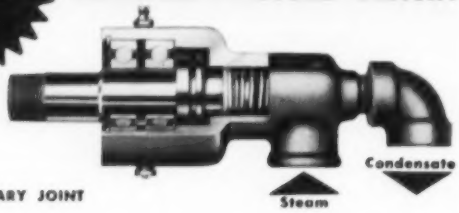
Laurel Brand

Laurel SOAP MANUFACTURING CO., INC.
TIOGA, THOMPSON & ALMOND STS., PHILA. 34, PA.

Warehouses: Paterson, N. J., Chattanooga, Tenn., Charlotte, N. C.

SEALOL

ROTARY JOINT FEATURES
"BALANCED PRESSURE" DESIGN!



TYPE S ROTARY JOINT

SEALOL — The Seal Specialists — have designed a rotary joint which incorporates the outstanding design features of THE BALANCED PRESSURE SEAL.

- Low Torque
- Long Life
- Automatic take-up for normal wear
- Leak-proof
- Choice of carbon or ball bearing
- Minimum maintenance

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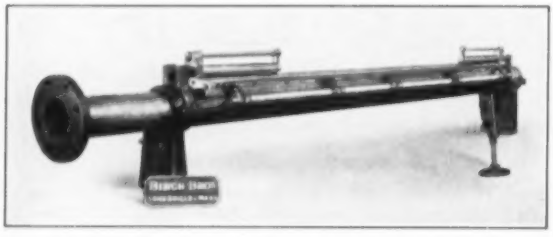
SEALOL

THE BALANCED PRESSURE SEAL

FOR BEST EXTRACTION
BIRCH BROS. PATENT ADJUSTABLE
SLOT VACUUM BOX



NYLON. The Nylon Yarn in fabrics cannot be compressed sufficiently to remove the moisture between the threads. Vacuum extracting will remove this moisture.

TUFTED CARPETS. Vacuum extraction results in equal if not better extraction than heavy squeeze rolls and leaves the tufts erect and in better condition.

COTTON FABRICS. A vacuum extractor following a medium pressure squeeze increases the extraction about 50% and results in more than doubling the drying speed.

CARBONIZING. Vacuum extraction following squeeze rolls results in uniform carbonizing by compensating for the wear of the rolls.

BIRCH BROTHERS, Inc.
SOMERVILLE 43, MASS.

exposure to light or heat. Its excellent adhesion and fiber binding properties suggest its use in nonwoven fabrics, textile backcoatings, sizings, carpet backings, and other applications. It contains an emulsifying system which imparts excellent mechanical and ion stability. Light aging is from four to ten times as good as was found in earlier companion products. Color stability on prolonged heating at elevated temperatures is outstanding.

The Goodyear Tire and Rubber Co., Inc., Chemical Div., Akron 16, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-223

The rubber bulb of the Spinlab Port-Ar (see TI for August 1956, p. 171) can now be replaced with the Port-Ar pump to convert the instrument into a production tool. Operated by a foot control, the pump speeds up the number of samples which can be processed in a given time, and gives more consistent and reproducible results.

Special Instruments Laboratory, Inc., Knoxville, Tenn.

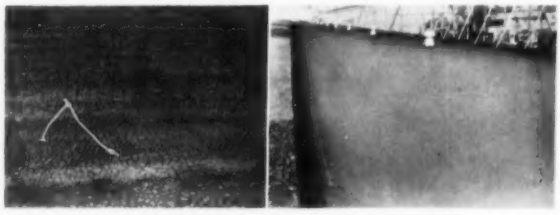
Do you want more data? Write Supplier or use card on page 223; list D-224

A premetallized neutral dyeing dye, Lanasyn Brown 2RL, for the neutral dyeing of wool or nylon, has superior fastness to light and to decatizing. Among its characteristics are: production of a good union on silk and wool by common salt method; greenness in artificial light; superior fulling; high resistance to the effects of iron and copper; and desirable orange over-hand in daylight.

Sandoz Chemical Works, Inc., 61 Van Dam St., New York 13, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-225

Weathered roofs may be economically refinished by using the Fiberflex glass roof system. For roofs which have taken on that "alligator" texture, the system consists of a strong glass fiber mat which reinforces a watertight emulsion. The mixture is applied to the weathered roof to bridge the cracked areas and topped with another coating of the emulsion to present a new and smooth roof surface.



Left, old roof with "alligator" look; right, refinished roof.

The Philip Carey Mfg. Co., Cincinnati, Ohio.

Do you want more data? Write Supplier or use card on page 223; list D-226

Automatic package separation is accomplished by the Standard Auto-Diverger; automatic package control of separation is available in a number of proved methods. Commodities can be separated to specific lines by counting, machine demand, size differences, weight differences, or by color code identification. Cases can be fed at a conveyor speed of 150 twelve-inch-long cases per minute, or the equivalent of 100 eighteen-inch-long cases. Cases can be end-to-end on the conveyor line, and the unit will separate them as required without stopping the flow.

Standard Conveyor Co., North St. Paul 9, Minn.

Do you want more data? Write Supplier or use card on page 223; list D-227

Two fast dyes for wool, nylon, and silk have been announced. Cibalan Brilliant Red BL yields attractive shades from pastel pink to bright crimson; it produces colors of unusual fastness in its shade range—80-100 hours

in sunlight. Cibalan Blue FBL produces a pleasant, slightly reddish shade of blue, ranging to royal blue in heavier shades. With all-round good fastness, it is applicable to all stages of yarn and fabric processing. Dyeing procedures for these and the 27 other Cibalans are simple. Goods are run in either neutral or acid baths (with the assistance of Cibalan Salt S). No aftertreatments are required.

Ciba Co., Inc., 627 Greenwich St., New York 14, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-228

For color matching, an economical, self-contained unit called the "Lablite" is available. It is 39" high, 28½" wide, and 16" deep.

Macbeth Daylighting Corp., P. O. Box 950, Newburgh, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-229

The desizing agent Diastofor LCD is available in an improved and more concentrated form. Easily diluted, it requires less storage space, lowers handling costs, and gives trouble-free desizing.

Standard Brands, Inc., 595 Madison Ave., New York 22, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-230

A powerful liquid detergent, Sonolene L, contains minimum 53% active ingredients, and gives superior detergency without the use of salts or alkaline builders. It is for use on cottons, acetates, and acrylics and with excellent white retention powers. Easy to handle, its use results in goods remaining soft and lofty; and print fabrics are made sharp, bright, clear, and free from crocking. When used with tripolyphosphate or soda ash, it is recommended for use in scouring wool, nylon, viscose, and Dacron.

L. Sonneborn Sons, Inc., Textile Chemicals Div., 300 Fourth Ave., New York 10, N. Y.

Do you want more data? Write Supplier or use card on page 223; list D-231

A spun nylon spinning tape, produced by Lambeth Rope Corp., is heat treated and embodies the "Overdrive" weave. The tape is readily bondable, and has the minimum acceptable thinness for a tape of this type.

Carolina Belting Co., Greenville, S. C.

Do you want more data? Write Supplier or use card on page 223; list D-232

New books

The latest ASTM tentative and standard methods of tests, specifications, and definitions pertaining to textiles are included in the November, 1956, edition of *ASTM Standards on Textile Materials.* Of the 126 standards and tentatives, 21 are new and eight were revised since the previous edition of the book was published in January 1956. Copies may be obtained from the American Society of Testing Materials, 1916 Race St., Philadelphia 3, Pa. Price: $6.00 per copy.

The New Revolution in the Cotton Economy is a history of mechanization in the cotton economy, and is a contribution to better public understanding of farm mechanization and its social effects on southern farm welfare. Price: $5.00. Available from the University of North Carolina Press, Chapel Hill, N. C.

How Much Money Do You Throw Away Every Day?

Chances are, you throw away quite a bit in the form of size that must be dumped.

Cost engineers indicate that a lot of starch never reaches the fabric because slashers must be changed from one size to another to meet loom requirements, because the slasher must stand at the end of a shift and for various other reasons.

THAT'S MONEY DOWN THE DRAIN!

With the NEMO JET COOKER, there is no size in storage kettles to dump. The size is cooked *continuously* under *pressure, as you need it.* You can run the size down in the size box and add what you need to match out from the NEMO JET COOKER.

The only size you have to dump is what remains in the size box, plus 2 or 3 gallons in the cooker. In addition to saving money, the problem of *stream pollution* is lessened.

Take a look at the NEMO JET COOKER before you buy new equipment or additional controls. You can save a lot of money. Write for information regarding a test run today!

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Rugged track with shielded electric contactors.

Short sleeve for top creel board, tapers and spare roving.

Medium length sleeve for middle creel board and roving tapers.

Long multi-outlet sleeve for bottom creel, thread board, roll stand area, ring rail, spindle rail and underframe. High velocity air.

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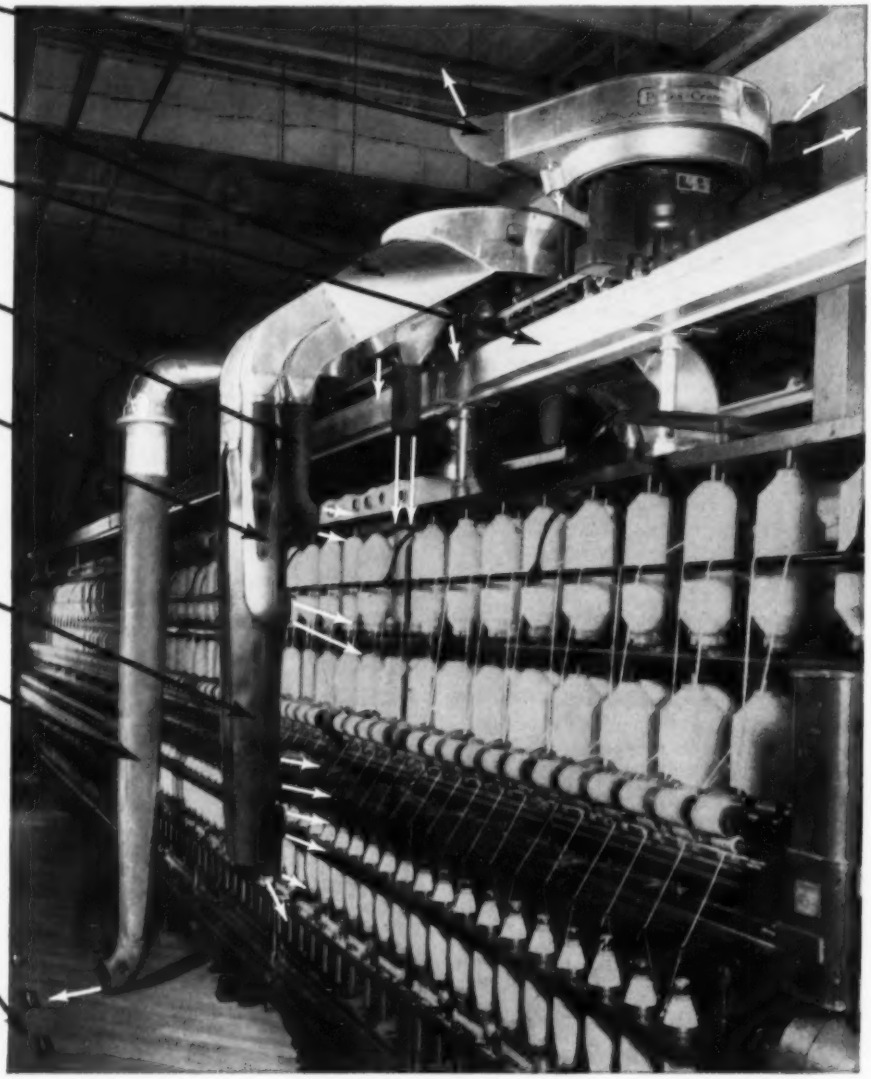
Floor sweeper outlet turns on curves. Low velocity air.

Vacuum removal of floor sweepings at two or more alleys.



Parks-Cramer Company

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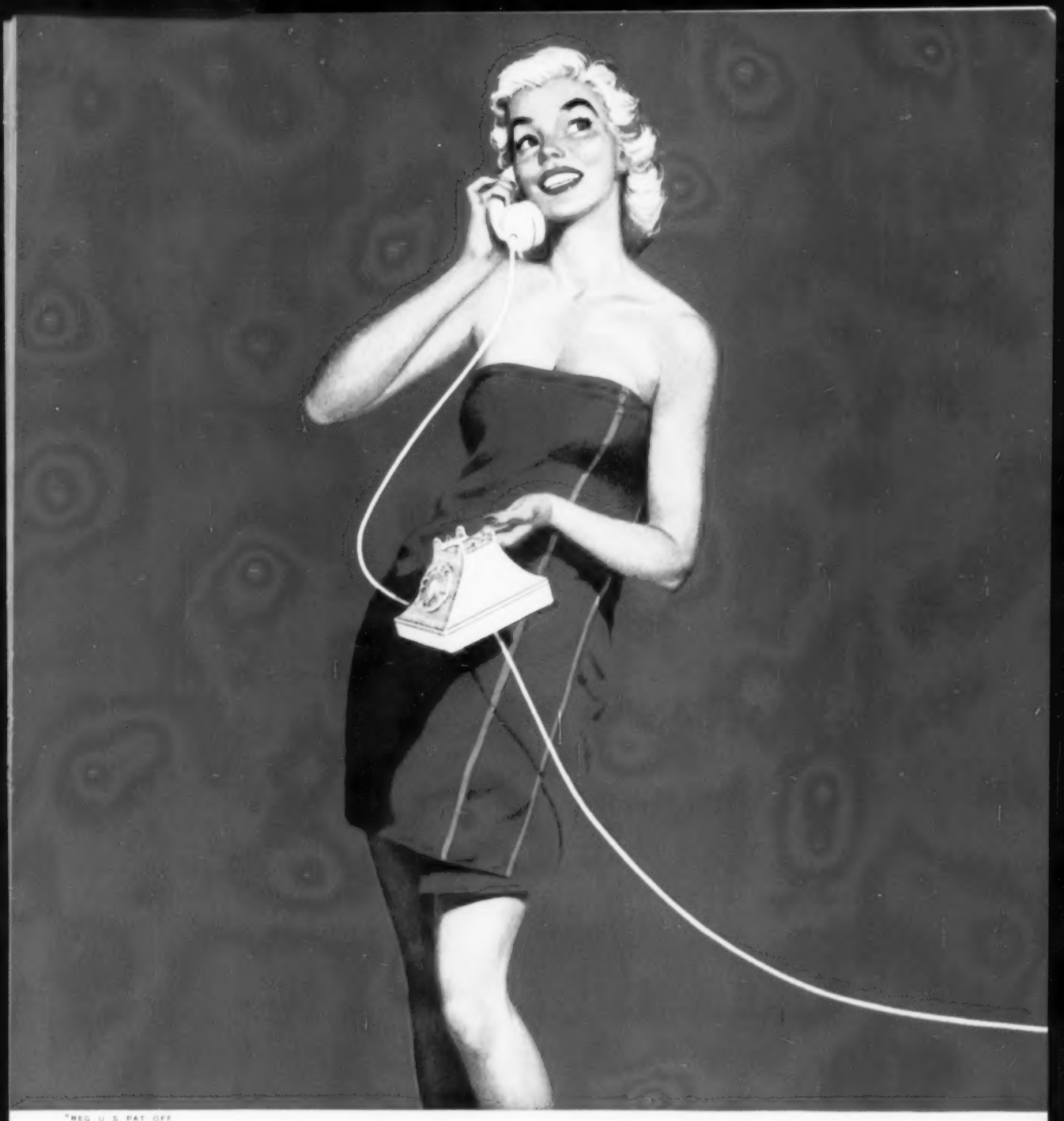

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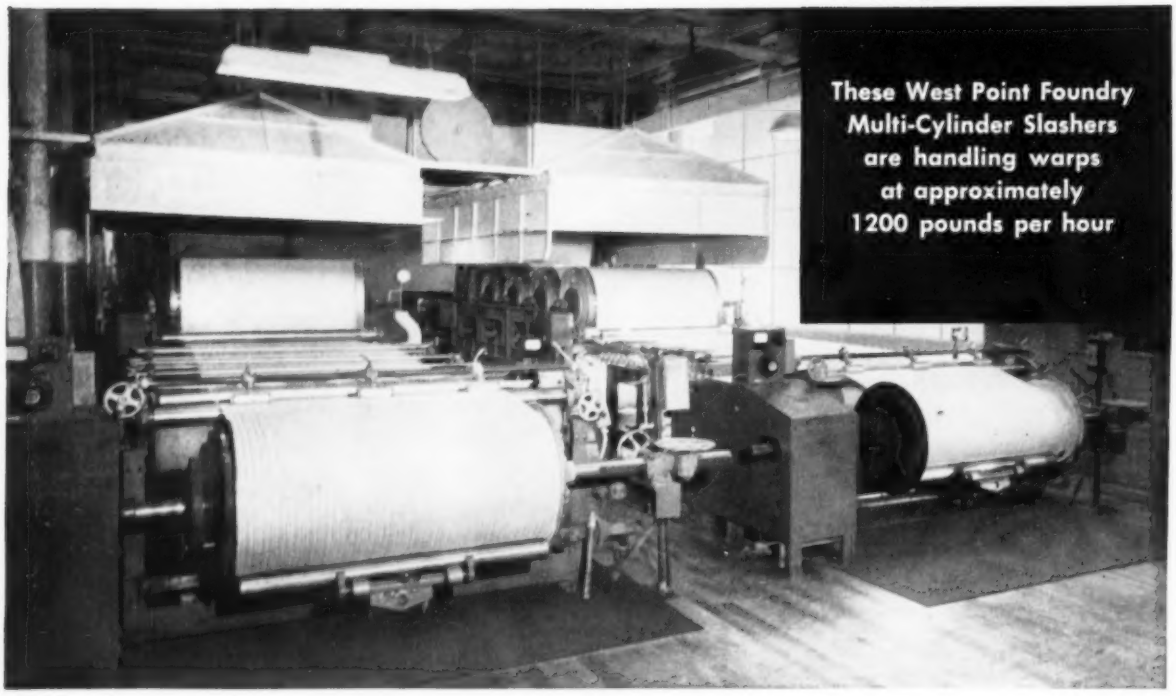
Slash More Warp at Less Cost



That's a *typical* drying rate these high producing slashers are turning out in a Georgia mill of one of the largest textile organizations*—1240 pounds per hour, 5560 ends of 24's cotton at 75 yards per minute. In other mills West Point Foundry MULTI-CYLINDER slashers are slashing warps at speeds up to 230 yards per minute and drying rates of 2000 pounds per hour. That's *high production*—the reason why *four* West Point Foundry MULTI-CYLINDER slashers replaced seven of the old 3-cylinder slashers!

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MULTI-CYLINDER SLASHERS already in many mills have cut in half the number of slashers *and the floorspace* needed to handle a mill's production. And they continue to produce for years with dependable, high speed performance. They are built on heavy *machined* CAST IRON frames—built to take it! Another important advantage of the MULTI-CYLINDER SLASHER is its extreme versatility. It does an outstanding job on cotton, spun and filament synthetics. Teflon coating on entering cylinders makes it completely applicable to cotton. Multiple cylinders permit graduated temperature controls when required for synthetic warps. Superior *control of tension* throughout the slasher and *steam economy* are two more profit-making features. THIS SLASHER IS A MONEY-MAKER!

Remember—you have a choice with West Point because West Point Foundry makes both MULTI-CYLINDER and AIR-DRI® Slashers.

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4-19 FIBERS FOR FILTER FABRICS. Information on synthetic fiber filters. Du Pont Textile Fibers, Wilmington, Delaware.
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4-22 VARIABLE PITCH DRIVES. Tables on application of drives, specifications. Browning Mfg. Co., Maysville, Ky.
4-23 RADIATION GAGE. Application to control of rubber or latex on fabric. Data Sheet 10.9-3, Minneapolis-Honeywell, Wayne & Windrim Aves., Philadelphia 44, Pa.
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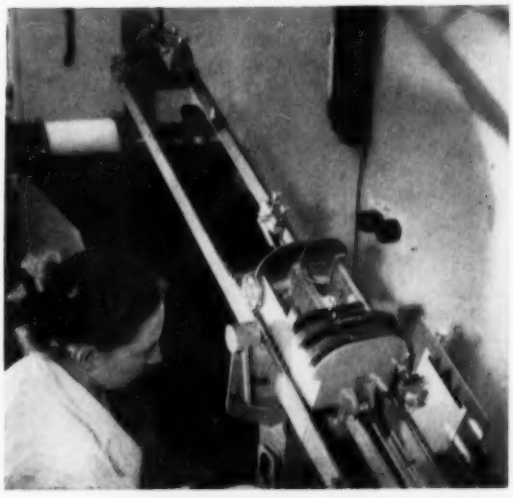

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R-3 CARD GRINDING INFORMATION—Care and operation of cards. B. S. ROY & SON CO., Worcester, Mass.

R-4 CARD CLOTHING — Describes Strip-O-Matic Card Clothing. BENJAMIN BOOTH CO., Allegheny Ave. & Janney St., Philadelphia, Pa.

R-5 VERSA-MATIC DRAWING FRAME — Describes drafting elements, quality of sliver, roving and yarn possible. SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass.

R-6 THE SARGENT OPENER — Describes opener with rotary evener and stripper. C. G. SARGENT'S SONS CORP., Graniteville, Mass.

R-7 BALL BEARING COMB BOXES —Describes working principle, shows cut-away views. SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia.

R-8 FEATHERTOUCH DRAFTING —Describes "highest production per frame at lowest cost." IDEAL INDUSTRIES, INC., Bessemer City, N. C.

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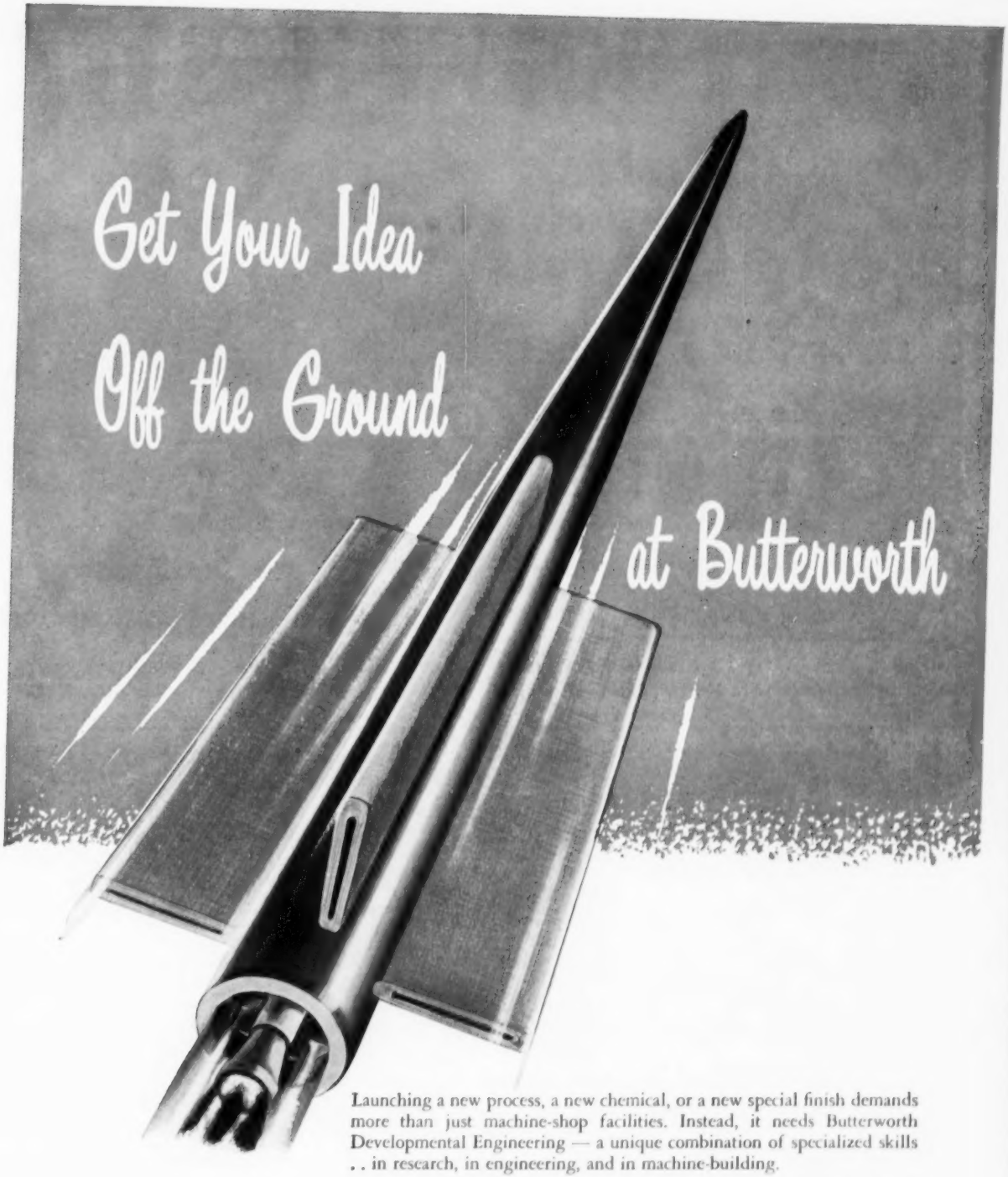

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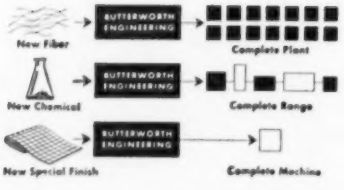

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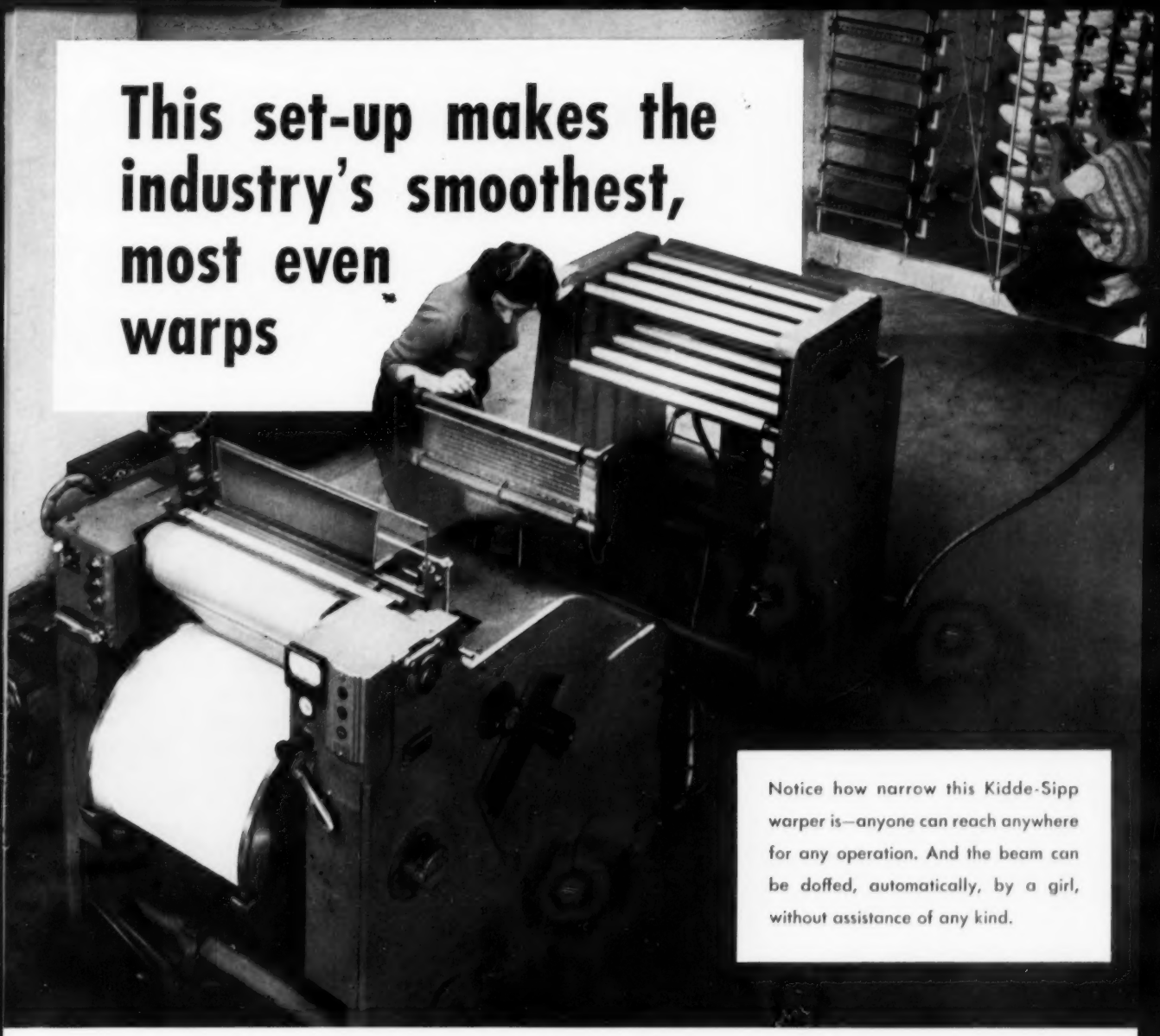

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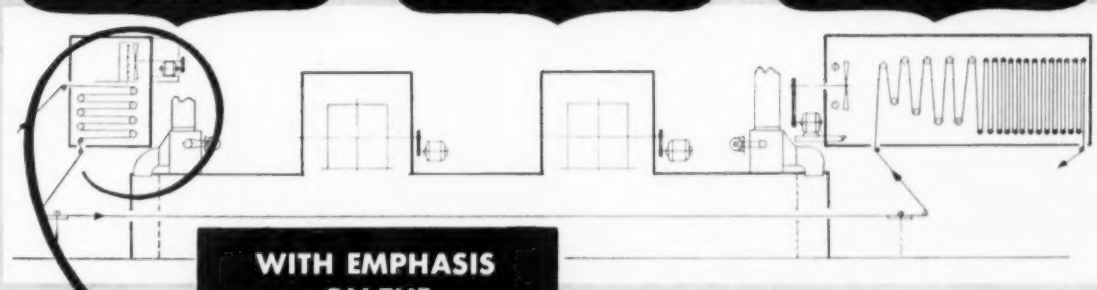

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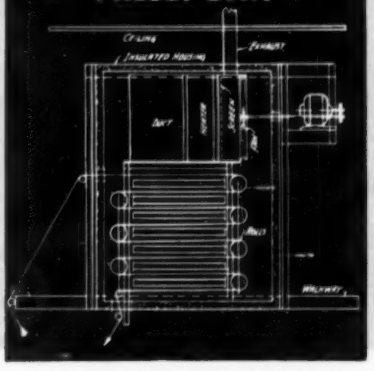

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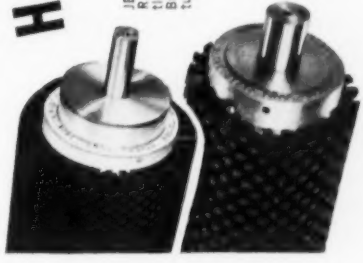

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R-861 "VARI-PITCH" SHEAVE BULLETIN — Control by means of pitch diameter adjustment described. ALLIS-CHALMERS MFG. CO., Milwaukee 1, Wis.

R-863 PENETRATING WOOD FINISH — Describes floor seals for textiles. E. I. DU PONT DE NEMOURS & CO., INC, Finishes Div., Wilmington, Del.

R-864 CERTIFIED CLIMATE AIR-CHANGER SYSTEM — Describes use with direct humidification for partial or complete air conditioning. PARKS-CRAMER CO., Fitchburg, Mass.

R-866 STORAGE WATER HEATING — Bulletin No. 923 on hot water heating to stretch boiler capacity. FRED H. SCHAUB ENGINEERING CO., 2110 South Marshall Blvd., Chicago 23, Ill.

R-867 AIR LINE FILTERS — Filters for removal of oil, corrosive moisture, abrasive pipe scale, etc. C. A. NORGREN CO., 3450 So. Elati St., Englewood, Colo.

R-868 RIDGE TOOL PRICES — Capacities and weights included along with pictures. RIDGE TOOL CO., Elyria, Ohio.

R-869 STAINLESS STEEL FABRICATION — Information on ventilating and drying, slasher exhaust, and materials handling in stainless. SIMS METAL WORKS, West Point, Ga.

R-870 "AIR-PROCESSING" — How, where it can be used and requirements for a successful system. J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N.Y.

R-871 COLOR CONDITIONING — How to put color to work for you. E. I. DU PONT DE NEMOURS & CO., INC., Finishes Div., Wilmington, Del.

R-872 METAL CONVEYOR BELTS — Illustrates entire range of manufacture. ASHWORTH BROS., INC., Metal Products Div., Fall River, Mass.

R-873 RIHCO HUMIDIFIERS AND COOLING SYSTEMS—Describes new atomizers to lessen air consumption in evaporative cooling systems. ALDRICH MACHINE WORKS, P. O. Box 750, Atlanta, Ga.

R-874 DYNAC BRAKE MOTORS — Electrical braking of a-c motors-roving, spinning, knitting. WESTINGHOUSE ELECTRIC CORP., Pittsburgh, Pa.

R-875 TEXTILE APPLICATIONS FOR "SCOTCH" TAPE — Some good ideas on using "Scotch." MINNESOTA MINING & MFG. CO., St. Paul 6, Minn.

MATERIALS HANDLING

R-901 CASTERS AND WHEELS — Casters and wheels for all applications. DARNELL CORP., LTD., 12000 Woodruff Ave., Downey, Calif.

R-902 LANE CANVAS BASKETS — Complete line for textile use. W. T. LANE & BROTHERS, Poughkeepsie, N.Y.

R-903 OVERHEAD HANDLING EQUIPMENT — Shows successful applications of monorail systems. AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

R-904 HOW TO TEST CORRUGATED BOXES — Offers comprehensive check-list for judging boxes. HINDE & DAUCH, Sandusky, Ohio.

R-905 CONVEYOR KEY BOOK — How to step-up production with modern conveying. LOGAN CO., 1115 Franklin St., Louisville, Ky.

R-906 HOW TO SELECT A LIFT TRUCK — Excellent means for price comparison between similar trucks. HYSTER CO., 2902 N.E. Clackamas St., Portland 8, Oregon.

R-907 CORRUGATED CONTAINERS — Describes Multi-Unit and Bulk Containers for textiles. GAYLORD CONTAINER CORP., 111 N. 4th St., St. Louis 2, Mo.

R-909 TRAMRAIL ENGINEERING AND APPLICATION — Data on how Tramrail Equipment can cut handling costs. CLEVELAND TRAMRAIL DIV., CLEVELAND CRANE AND ENGINEERING CO., 1036 East 289th St., Wickliffe, Ohio.

R-910 HOW TO SPECIFY PACKAGING — Regulations on shipment, how to determine which package to use. HINDE & DAUCH, Sandusky, Ohio.

R-911 NEW LIFT TRUCKS — Shows latest trends in lift truck design. HYSTER CO., 2902 N.E. Clackamas St., Portland 8, Oregon.

R-912 MATERIALS HANDLING FOR TEXTILES — Shows how fibre trucks can increase efficiency, protect products. NATIONAL VULCANIZED FIBRE CO., Wilmington 99, Del.

R-913 CONTINUOUS POWER CONVEYOR — Complete information on Zig-Zag Conveyor. RICHARDS-WILCOX MFG. CO., Aurora, Ill.

R-914 STRESSES ON OVERHEAD TRACKS — Covers track peening, discusses stresses. CLEVELAND TRAMRAIL DIV., CLEVELAND CRANE & ENGINEERING CO., Wickliffe, Ohio.

R-915 SCIENTIFIC MATERIALS HANDLING — Describes various materials handling devices, includes pictures. BENNETT ROSE CO., Box 8, Roebuck, S. C.

R-916 OVERHEAD MATERIALS HANDLING — Treats twin fan ceiling cleaners and shock proof electrification as well. LOUDEN MACHINERY CO., Fairfield, Iowa.

R-917 LITTLE PACKAGING LIBRARY — Series of booklets covers the business of shipping in corrugated boxes. HINDE & DAUCH, Sandusky, Ohio.

R-919 IMPROVED MATERIALS HANDLING — "Materials in Motion" describes use of fibre containers. NATIONAL VULCANIZED FIBRE CO., 1056 Beech St., Wilmington, Del.

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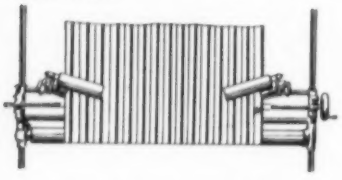

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Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 38)

The Association of Cotton Textile Merchants of New York, at the annual dinner of the association, on January 31, at which Mr. Dribben was guest of honor following his retirement, and at which other textile industry leaders paid tribute to his lifetime of service to a single company.

Paul A. Redmond, Jr., who is presently a director of the Associated Industries of Alabama and the Southern States Industrial Council, resigned as an official of Dan River Mills, Danville, Va. Mr. Redmond was president of Alabama Mills before the mills became a division of Dan River.

Deering, Milliken & Co., Inc., has announced a number of staff changes within the organization: Elected to the board of Gaffney (S. C.) Manufacturing Co. was **Marshall C. Stone,** treasurer and general manager of Pacolet (S. C.) Manufacturing Co., succeeding the late C. L. Chandler. * * * **R. C. Edwards,** who resigned to become vice-president of the Clemson College development program, is succeeded as general manager of Abbeville (S. C.) Mills Corp., by **L. J. Fisher, Jr.** Succeeding Mr. Fisher is **W. L. Thrailkill,** formerly manager of the Kingsley Mill at Thomson, Ga. **Tom E. Peden** has been transferred from plant manager at Johnston (S. C.) Mill to a similar capacity at the Abbeville Mills. New superintendent of Gerrish Milliken Mills at Pendleton, S. C., is **A. W. Stoudenmire,** formerly of Abbeville. New combined personnel and office manager at Johnston (S. C.) Mill is **J. W. Outz;** former Johnston personnel manager, **J. M. Edwards, Jr.,** has been named to quality control. * * * At Excelsior Mills Finishing Plant, Pendleton, **Madison F. Bond, Jr.,** has been named production superintendent.

J. L. Fesperman, formerly general superintendent of Cabin Crafts, Inc., Dalton, Ga., is now general superintendent of Katherine Rug Mills, also of Dalton.

New executive vice-president of Highland Cotton Mills, High Point, N. C., succeeding **H. F. Hunsucker,** is **W. Basil Hill,** former division manager of Mooresville (N. C.) Mills. Mr. Hunsucker is board chairman.

Promotions at Stowe Mills No. 1, Pharr Worsted Mills, and Pharr Yarn Mills, McAdenville, N. C., include: **J. D. Bynum** to assistant general superintendent of all three mills; **Earl Mullinax** to superintendent of Stowe Mills No. 1.; and **Glenn Hall** superintendent of the synthetic division of Pharr Worsted Mills.

Nicholas Valvanis has joined the staff of McCampbell & Co., New York, N. Y., to assist **James Lucier** in fabric development for Ponemah Mills, Taftville, Conn. Mr. Valvanis formerly was associated with Reliable Textile Co., Inc., and Rutgers Fabrics. Mr. Lucier has assumed additional duties as administrator in charge of sales of the mill's synthetic fabrics.

At Riegel Textile Corp., Trion, Ga., **Manuel Ellis** has been promoted to assistant overseer of the dyeing department, and **Max M. Barton** to second hand. Mr. Ellis has been with the department 17 years; Mr. Barton, eight years.

At Shelby (N. C.) Cotton Mills, **R. T. LeGrand, Sr.,** goes up to the newly-created post of chairman of the board, while his son, **R. T. LeGrand, Jr.,** steps into his father's former post as president of the company, continuing also as treasurer. The senior Mr. LeGrand will continue in an active capacity, assuming an advisory role. **William F. LeGrand** was elected secretary and assistant treasurer.

J. R. Nelligan has announced his resignation as vice-president and general sales manager of the Stead & Miller Division at Concord, N. C., of Collins & Aikman Corp. Mr. Nelligan will reside in Los Angeles, California.

Added to the duties of **Henry W. Swift,** president of Swift Spinning Mills, Columbus, Ga., were those of treasurer, following the retirement of former treasurer, **H. Emmett Hall,** after 24 years of service. Assistant treasurer, **C. F. McCrary,** has resigned; **Robert I. Earnest** has been named to the new position of comptroller.

Appointments of **Thomas J. Gillick, Jr.,** as manager of the engineering and research division of American Felt Co., Glenville, Conn., and of **Harold G. Hencken** to succeed Mr. Gillick as the company's director of engineering activities, have been announced. Both appointments follow the recent retirement of **Hugo Boeddinghaus** as vice-president in charge

of the engineering and research division. Mr. Hencken had served as a research engineer on product development work.

Dr. Thomas H. Swan, a chemist with wide experience in textile and elastomer research, recently joined the staff of the Southern Research Branch of the Agricultural Research Service, USDA. He is stationed at the Southern Regional Research Laboratory in New Orleans, La., and has been named assistant head of the cotton fiber section. Dr. Swan was formerly assistant chief of the research and development division of the Office of Synthetic Rubber.

Watson Peterson, Jr., has received an appointment as director of personnel and public relations for Waumbec Mills, Inc., N. Y. C., and Manchester, N. H. Mr. Peterson was formerly affiliated with the Edwards division of the Bates Manufacturing Co., Augusta, Maine, in a similar capacity.

John A. McCarn has been transferred from Stowe Spinning Co.,

Mr. McCarn

Belmont, N. C., to Imperial Yarn Mills, Belmont, as superintendent.

Filling the newly-created post, operations manager of National Worsted Mills, Inc., Falconer, N. Y., (headquarters at Jamestown, N. Y.) is **Benjamin J. Zalking,** who had been general manager of Mack Kahn textile operations in New England.

The promotion of **Dorrance H. Goodwin** to the position of executive director of the Lowell (Mass.) Technological Institute Research Foundation has been announced. Mr. Goodwin had been director of research services at the LTI Research Foundation since November, 1954.

In a recent election, **W. L. Maige, Jr.,** was named vice-president and director of Moultrie (Ga.) Cotton Mills. **Loren L. Dickerson** has retired from the firm.

At a recent meeting of the Textile Bag Manufacturers' Association, **Bernard Werthan,** vice-president of Werthan Bag Corp., Nashville, Tenn., was named president.

At Angus Park Woolen Co., Inc., Hanover, Conn., **William Johnston** has resigned as general manager, and he has been succeeded by **Angus W. Park,** vice-president and secretary.

At the Elmrose Division of Callaway Mills Co., LaGrange, Ga., new Unity spinning plant engineer is **James O. Hammond,** formerly overseer of carding at Canton (Ga.) Cotton Mills.

Officers elected at a meeting of the newly formed National Cashmere Association, Inc., are: **Alfred Cavedon,** Aldon Spinning Mills Corp., Talcottville, Conn., president; **Malcolm H. Frost,** formerly with Metcalf Bros. & Co., Inc., executive director; **Orville Forte, Jr.,** Forte, Dupee, Sawyer Co., Needham Heights, Mass.; **James Greenbaum,** Dalton of America, Inc.; and **Arthur O. Wellman, Jr.,** Nichols & Co., Inc., vice-presidents. **Hans C. Altmann,** vice-president The Bernhard Altmann Corp., New York, N. Y., was named treasurer and **Miss Alma G. Watson,** secretary.

OBITUARIES

R. Thurmond Chatham, former chairman of the board and president, Chatham Manufacturing Co., Elkin, N. C.

James Allison Cooper, 62, retired president of Harriet-Henderson (N. C.) Cotton Mills.

Charles M. Geer, retired assistant secretary and sales manager of the former USEO division of Callaway Mills Co., LaGrange, Ga.

John Oliver Hunt, 71, president of Southern Loom Development Co., Greenville, S. C.

Erskin T. Johnson, 40, superintendent of Miller Smith Hosiery Mills, Knoxville, Tenn.

L. R. Parker, 52, president of the Albany (N. Y.) Felt Co.

G. H. Rauschenberg, 67, president of G. H. Rauschenberg Co., Dalton, Ga., and past president TTMA.

Warren L. Shenk, 63, superintendent of Jomac, Inc., knitting mill, Philadelphia, Pa.

Milton Silver, 64, founder and president of Silver-Knit Hosiery Mills, High Point, N. C.

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What the TEXTILE MILLS are doing

Plans are being laid by **Bamberger Reinthal Co.**, Cleveland, Ohio, for the construction of an addition to its plant, and for the installation of new knitting and finishing equipment in an operation designed to double the capacity of its existing facilities for the production of Snowflake headwear for men, women, and children.

A recent announcement concerning The Androscoggin division, located at Lewiston, Me., of **Bates Mfg. Co.**, states that the mill will be liquidated. The plant has been operating part time for some years on synthetics.

Beeren Knitwear, Inc., Clover, S. C., has announced plans for a plant expansion to help wipe out a backlog of orders and to permit the acceptance of new orders. Employment will almost double the present force of 65.

Plans have been announced for the construction of a new plant by **Bigelow-Sanford Carpet Co., Inc.**, in Calhoun Falls, S. C., for the manufacture of carpet yarns for consumption within the organization.

It has been announced that **Sidney Blumenthal & Co., Inc.**, has started an expansion and modernization program at its Valley Falls, R. I., plant. Sixteen spinning frames of the newest type, along with other equipment, will be installed in the $640,000 program.

The **Burlington Industries, Inc.**, hosiery plant at Scottsboro, Ala., is now known as **Scottsboro Hosiery Co.** * * * The additions to the Franklin, N. C., plant will increase both production and employment some 50%. Present employment is approximately 300 people.

Construction has been started on a 51,000 sq ft addition to the Barnesville, Ga., plant of the **William Carter Co.** The added floor space will be used as follows: knitting, 12,000 sq ft; bleaching, 23,000 sq ft; and printing, 16,000 sq ft. More personnel will be added to the present staff of 900 employees. The program at Barnesville will cost approximately $800,000. The printing facilities will enable the firm to handle a part of its printed knitwear fabric requirements for infants', children's, men's, women's, and boys' wear. * * * Land has been purchased in Thomaston, Ga., for future expansion of the facilities there.

Crest Processing Corp., 9 East 23rd St., Paterson, N. J., has ceased operations.

The Danville, Va., division of **Dan River Mills, Inc.**, for the fourth straight year has smashed its own safety record. Last year the Danville plants, which employ more than 10,000 people, experienced 26 lost time accidents for a frequency of 1.2 —the figure for the previous year: 1.7. Safety award plaques were given to 108 departments which had no lost time accidents during 1956. Of that number, 50 departments had operated for four consecutive years without a lost time accident; 24 had operated three years; 17 had operated for two years; and five departments received awards for the first time. * * * The executive offices of the Alabama Mills Division are in the process of being moved from Birmingham to Hilltop Arms, 600 Montgomery St., Montgomery, Ala.

The first Seal of Cleanability award offered by the national Institute of Rug Cleaning, Bethesda, Md., was given to **Aldon Rug Mills, Inc.**, Lenni Mills, Pa.

A recent report states that the **Merrimack Mfg. Co.** has started recalling the 900 employees, laid off last August, to increase its production of velveteens and corduroys at Lowell, Mass. The report credited the export restrictions on velveteens imposed by Japan and Italy as prompting the resumption of full production.

Williamston (S. C.) Cotton Mills, Inc., has been acquired by **Mt. Vernon Mills, Inc.**, for the purpose of expanding Mt. Vernon's production of print and broadcloth. The purchased plant contains 41,000 spindles and 1100 looms.

Phoenix Hosiery Co., Milwaukee, Wis., expects to complete the transfer of its finishing operations to Asheville, N. C., within a few months. The move is being made to permit closer coordination between knitting and finishing.

A building housing the wool department of **Pine State Yarn Mills, Inc.**, Troutman, N. C., was recently severely damaged by fire. The main plant was not involved in the blaze.

According to a recent announcement, **Roper Knitting Co.**, Canadaigua, N. Y., is suspending operations pending a general reorganization.

As part of a $500,000 expansion program, **Shelley Knitting Mills Co., Inc.**, and its affiliate organization, **Shelley Sportswear, Inc.**, plan to centralize their operations in a 100,000 sq ft (single floor) structure at 1215 Glenwood Ave., Philadelphia, Pa. Shelley Knitting produces Ban-Lon and Orlon sweaters for misses and ladies under the trade name of

Screen Star Phyllis Kirk presents NIRC's first Seal of Cleanability award to Alvin Barg, Vice-President of Aldon Rug Mills, Inc., for a selection of Aldon rugs and carpets which passed Seal of Cleanability tests.

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What the TEXTILE MILLS are doing

"Shelley." Shelley Sportswear produces underwear, hunting and ski clothes, men's swim trunks, sport shirts, and walking shorts under the trade name of "Wunderwear."

The recently-formed **Rosemont Knitting Mills, Inc.,** will occupy some 7000 sq ft of plant space at 1000 Diamond St., Philadelphia, Pa. The new firm will produce ladies' and children's sweaters.

In a move toward diversification, **Scranton (Pa.) Lace Company** has acquired the Southwest International Corp., a Delaware corporation, and in doing so acquired a substantial interest in companies manufacturing a wide variety of products as well as an interest in industrial properties at Dobbs Ferry, N. Y., and St. Louis, Mo. Southwest's manufacturing interests include Fiberglas plastics, diesel engines, precision gauges, and cement tile. Scranton manufactures curtains, table covers, draperies, and vinyl laminates.

Chadbourn Gotham, Inc., will double the productive capacity of its Shannon Hosiery division at Concord, N. C., with the erection of a 10,000 sq ft addition to its present building. Upon completion, the plant will have a seamless production capacity of 350,000 dozen annually.

The Roanoke Rapids, N. C., plants of **J. P. Stevens & Co., Inc.,** Roanoke Mill No. 2 and Rosemary Mfg. Co., are undergoing major production changes to consolidate Mill No. 2 into an "all-ticking" plant, and Rosemary into a decorative fabric plant.

Harris & Covington Hosiery Mills, Inc., High Point, N. C., has bought all of the land, buildings, machinery, and equipment of the **Wilkes Hosiery Co., Inc.,** of North Wilkesboro, N. C. The Wilkes equipment will, according to the announcement, continue to be operated, but it has not been decided whether it will be utilized in North Wilkesboro or in High Point. The new owners take possession on May 1.

The National Association of Manufacturers has selected the operations of **The Scranton (Pa.) Lace Co.** as a subject for its TV show, "Industry on Parade."

At the annual meeting of the Alabama Cotton Manufacturers Association to be held in Biloxi, Miss., in early April, six Alabama textile mills will be honored for outstanding safety records for the year 1956. For the third consecutive year Tallassee Mills wins first honors. The ratings, as published by the Alabama Department of Public Relations, in 1, 2, 3, order are: For weaving and spinning division — **Tallassee Mills,** Tallassee; **Opp Cotton Mills, Inc.,** Opp; **Opelika Mfg. Corp.,** Opelika. For the spinning division; again in 1, 2, 3, order, are: **Linen Thread Co., Inc.,** Blue Mtn.; **Anniston Cordage Co.,** Anniston; **Adelaide Mills,** Anniston. The frequency rates of 1956 for the respective mills are: 0.24, 2.14, 2.90, 2.52, 2.63 and 5.45.

Plans have been announced for the addition of 25,000 sq ft of floor space to the Springdale plant of **Cabin Crafts, Inc.,** of Dalton, Ga. The addition will bring the floor space devoted to Cabin Crafts' Needletuft operations to more than 400,000 sq ft.

The building which housed the **Julius Kayser & Co.** hosiery mill in Belton, S. C., is for sale. The structure, containing approximately 50,000 sq ft, made of jumbo brick and glazed tile, is fully air-conditioned and completely sprinklered. Kayser is consolidating the plant operations with other units in the South.

A ladies' hosiery finishing plant and warehouse will be built in San Bernardino, Calif., by **Chester H. Roth Co., Inc.,** according to a recent announcement. The plant, to aid the company's expanding business along the West Coast and western states, is to be completed for the fall season.

Officials of **Swanknit, Inc.,** Cohoes, N. Y., have announced that the plant, destroyed by fire in early February, will be rebuilt at another, and as yet undetermined site.

It has been announced that **Lincoln Mills of Alabama,** Huntsville, will cease operations on or about April 1. The machinery and real estate will be sold. Reason for closing: "deteriorated market conditions." The plant contains 700 looms operating on drills, twills, ducks, and osnaburgs.

An independent research and development laboratory has been set up in Lyman, S. C., by **M. Lowenstein & Sons, Inc.**

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SUPPLIERS News

WHAT THEY ARE DOING

Albert P. Shutts, New York district sales manager, has been promoted to assistant sales manager of **Becco Chemical Division,** Food Machinery and Chemical Corp., with headquarters at the company's main office in Buffalo. Matthew A. Noonan steps up from manager of the Philadelphia territory to New York district manager and is now in charge of the Consolidated Philadelphia and New York territories. Paul U. Bretschger has been promoted to manager of the western New York territory which now includes upstate New York and western Pennsylvania. Edward M. Roth has been appointed assistant New York manager to share the expanded responsibilities of Mr. Noonan. George J. Motz has been added to the New York area sales staff and Eugene M. McMahon has been assigned as a field representative in the Philadelphia area. Richard T. Mould has been appointed to the midwest district sales staff in Chicago. Bruce J. Bishop has joined the sales organization and is assigned to the southern territory office in Charlotte.

Brainard Strapping Division of the Sharon Steel Corp. has announced the completion of a new laboratory for an expanded program of product research and tool development.

Charles W. Lockhart has been promoted from assistant sales manager to sales manager of the blower and air conditioning division of **Buffalo Forge Co.**

Dr. Robert W. Work, formerly assistant technical director of the textile division of Celanese Corp. of America at Charlotte, N. C., has joined the **Chemstrand Corp.** as fiber development department head in the textile research department. He is serving in a liaison capacity between the research and sales divisions and is in charge of the textile development of end products of Acrilan acrylic fiber and nylon. The New York office has leased the entire 17th floor of the Empire State Building. * * * Edward A. O'Neal, Jr., president, has been named chairman of the board of a subsidiary, Chemstrand Limited, which is building an Acrilan acrylic fiber manufacturing plant at Coleraine in northern Ireland.

A new 40,000 sq ft building in Ranlo, near Gastonia, N. C., under construction by the **Cocker Machine & Foundry Co.,** is expected to be completed and occupied by the firm's machine shop, warehouse, erecting department, and office in August of this year.

Jerguson Gage & Valve Co. has moved into its new plant and general offices on Adams Street, Burlington, Mass. The single story plant, located on a 9-acre tract, contains twice the floor area of the company's former plant in Somerville.

A change in the official name of the Continental-Diamond Fibre Division of The Budd Co., Inc., has been announced. Designated **Continental-Diamond Fibre Corporation.** The firm remains a wholly owned subsidiary of the Budd Co.

Continental Gin Co. has inaugurated an expansion program to broaden its diversification and provide additional facilities for a growing volume of business.

Dexter Chemical Corp. has completed construction of a modern office building on land adjacent to its present manufacturing facilities, the first step in a general expansion program.

Promotion of L. J. Polite, Jr., to product sales manager of the chlorinated products division of **Diamond Alkali Co.,** has been announced. * * * William J. Esselstyn steps up from sales promotion representative for solvents in the chlorinated products division to manager of organic intermediates and new product sales for the division. He is also responsible for the coordination of divisional technical service activities covering the firm's solvents and organic inter-

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SUPPLIERS News
WHAT THEY ARE DOING

mediates, and supervises bulk-terminal operations on these products.

Continental Can Co., Inc., announces the appointment of Helene G. Fontaine as merchandising manager for Conomet, the trade name given by the company to its new metallic yarn now in production. Miss Fontaine, whose headquarters are at 100 East 42nd Street, New York 17, was formerly retained as a consultant by Vogue Patterns to create and manage special promotions.

Raymond F. Pollard has joined the Warwick Chemical Division of **Sun Chemical Corp.** as textile sales manager, with headquarters in Long Island City, N. Y. Much of his time will be spent with district sales representatives. Mr. Pollard who was formerly associated with the Cranston Print Works, is familiar with all phases of finishing and dyeing.

Baroid Division, National Lead Co., has announced the promotion of C. M. Finlayson to manager of Bentone sales, with headquarters at the firm's general office in Houston, Texas.

Edgcomb Steel Co. has opened a new sales office in Greenville, S. C., at 1922 Augusta Road. William B. Hood is in charge of the new facility under the direction of Thomas A. Wilder, southern sales manager of Charlotte, N. C.

Six new appointments to key posts in the recently expanded sales department of **Ross Heat Exchanger Division** of American-Standard, include: Paul W. Wilcox, formerly product manager of engineered exchangers to sales manager; George G. Van Tuyl, transferred from the N. Y. district office, becomes manager of power equipment sales, eastern region; Marvin F. Schobert, assistant manager of the Chicago district office, to product manager, standard exchangers; Lawrence M. Fletcher to manager, Feedwater heaters; and William G. Ritchie, to product manager, surface condensers and ejectors.

Thomas E. Fitzgerald of Carrollton, Ga., has been promoted by **William Iselin & Co., Inc.,** as the firm's new business representative for North Carolina, Georgia, Alabama, Florida, Mississippi, and parts of Tennessee and South Carolina.

Miss Fontaine
Continental Can

Mr. Damon
Refined Products

Mr. Pollard
Sun Chemical

Mr. Hunter
James Hunter

Mr. Finlayson
Baroid Div.

Mr. Cannity
James Hunter

Mr. Hood
Edgcomb Steel

Mr. Leech
Emery Industries

Ashworth Bros. Inc. has consolidated all operations for the production of its metal process conveyor belts under one roof in a new plant in Winchester, Va.

Barnes Textile Associates, Inc., has announced the coordination of its activities with those of Scovell, Wellington & Co., and the relocation of the former's Boston office from 10 High Street to 110 State Street. The company will continue to provide consulting engineering services to the textile industry, functioning as Barnes Textile Associates, Division of Scovell, Wellington & Co.

New technical sales representative in Hudson Valley, N. Y., for **Refined Products Corp.** is A. Durfee Damon who has been associated with Deering, Milliken & Co., serving in several wet processing plant capacities.

James H. Hunter, president of James Hunter Machine Co., has been elected president of the **American Textile Machinery Association,** succeeding W. Frank Lowell, senior vice-president of Saco-Lowell Shops. Newly elected as vice-president is William K. Child, vice-president, Draper Corp. The new president will be assisted by Richard A. Hunter, vice-president.

James Hunter Machine Co. has established its recently acquired southern division, W. D. Dodenhoff Co., Inc., 745 Lowndes Hill Road, Greenville, S. C., as southern sales and service headquarters for two other Hunter divisions, Thomas Leyland Machinery Co., and Hunter Controls, Inc. Ernest Cannity, senior sales engineer, has been transferred from the main plant at North Adams, Mass., to the southern headquarters, where the firm's line of automatic blending systems, automatic weighing feeders for garnetts, and other textile equipment is produced and distributed.

Paul N. Leech has been appointed sales representative in the Mid-Atlantic territory of **Emery Industries, Inc.,** where he is responsible for the sale of the firm's complete line of fatty acids, and castor oil derivatives.

Markem Machine Co. has announced the establishment of a textile and apparel sales division, naming as manager Thomas H. Huggins, former manager of the southeast sales division. Mr. Huggins will be assisted by Leon Graves. The new division assumes full responsibility for sales and service of Markem machines to the textile and apparel industry throughout the U. S. and Canada. Suehle Associates have been appointed exclusive seller of the Markem Model 126 Machine method through the U. S. and Canada, in addition to the territory already served. Ferd Suehle, Jr., heads the firm.

Changes in the field sales organization of the industrial chemicals division of **Olin Mathieson Chemical Corporation** have been announced: W. D. Marshall, former district manager in the Philadelphia sales office, is being assigned to new sales duties

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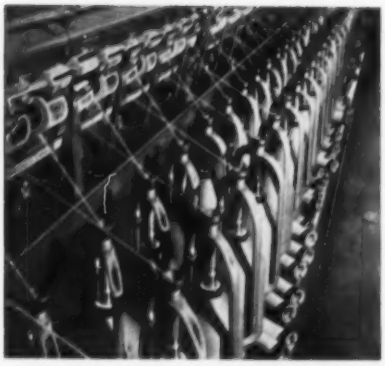
Hart Products Company of Canada, Ltd., Guelph, Ontario



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SUPPLIERS *News* — WHAT THEY ARE DOING

of a special nature. He is succeeded by J. G. Johns, formerly assistant manager in the Philadelphia office. Victor C. Fusco has been appointed a sales representative in Pittsburgh. Don Threlkeld has been named sales representative in the Chicago office.

Cited by the American Institute of Management as the best managed company in the U. S. was **Procter & Gamble,** awarded a total of 9,530 points out of a possible 10,000. * * * P & G has announced the appointment to its textile research department of Roger L. Pruitt who, prior to a period of service with the Army Quartermaster Corps, was associated with Burlington Industries.

Chosen new president of **Pittsburgh Corning Corporation** to succeed H. B. Higgins was Russell Brittingham, vice-president and director of purchases of Corning Glass Works.

A hang-tag program to identify fiber content in men's and boys' suits, sport coats, and slacks containing 65 per cent or more of Dacron in blends with cotton is being launched by **E. I. du Pont de Nemours & Co.** for the 1958 retail selling season. * * * Dr. Joseph B. Quig, textile fiber authority of renown, has retired from the company.

Raymond L. Dirksen, sales engineer, has been promoted to assistant sales manager of the Dynamatic Division of **Eaton Manufacturing Co.**

Economy Baler Co. has appointed A. Benson (Ben) Davis of Charlotte, N. C., to market the firm's line of presses for baling cloth, yarn, metals, cotton, wool, etc.

A contract has been signed to merge **Wallerstein Co., Inc.,** with **Baxter Laboratories,** all outstanding stock of the former to be acquired by the latter. Wallerstein Co., which serves the textile wet processing field and others, will operate independently.

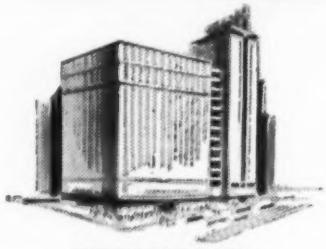
Whitinsville Spinning Ring Co. has employed for the Georgia, Tennessee, and Alabama territory Peter C. Everett, formerly associated with the Wonalancet Co. Mr. Everett resides at 369 Meadowbrook Drive, N. E., Atlanta, Ga.

Present plans call for the continuance and expansion of Hemphill Company's New York City sales office in the Empire State Building to include the Wildman Jacquard lines, according to an announcement by **Draper Corp.** As soon as possible the newly developed Wildman Jacquard knitting machine, Model TFS, for the production of full-fashion sweaters, will be installed in the New York sales office. Hemphill's southern sales office at High Point, N. C., will also be utilized by Wildman Jacquard. * * * John A. Heywood has accepted a post as Brazilian representative with headquarters in Sao Paulo. He was formerly sales representative and assistant to the export sales manager.

The San Francisco branch of **Sarco Co., Inc.,** and Sarcotherm Controls, Inc., moved its office and warehouse to new and larger quarters at 1485 Bayshore Blvd. J. Spear is manager.

Richard D. Printz, formerly southern regional sales manager for the Robert Palmer Corp., has been named assistant sales manager of **The Selig Co.,** with headquarters in Atlanta, Ga.

Everything's New at DINKLER HOTELS



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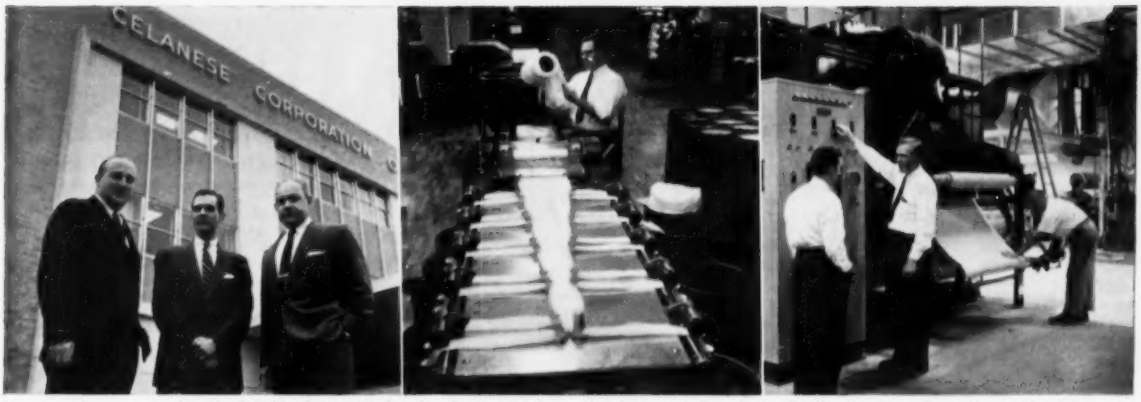

Key people concerned with the Charlotte, N. C., development laboratories of Celanese Corporation of America are pictured in the left photo: (l to r) P. H. Konze, director of textile marketing; J. W. Brooks, vice-president and general manager of the textile division; and Dr. R. G. Stoll, director of textile applications and product development. Yarn manufacturing and dyeing and finishing machinery shown in the center and right photos is typical of that with which this facility is equipped.

On January 30, 1957, **Celanese Corporation of America** unveiled its Charlotte, N. C., development laboratories, functions of which are (1) the development of practical and economical processes to manufacture new fibers and (2) development of new end uses for fibers as well as improved textile processing, dyeing, and finishing techniques that are passed on to the company's customers. Facilities of the laboratories, covering approximately 160,000 sq ft of total area, include the most modern equipment (see accompanying photos), and operations involve spinning, weaving, knitting, dyeing and finishing, and production of non-woven fabrics. The laboratories provide a vital link between the company's fiber research, commercial fiber production, and textile marketing and distribution, according to Celanese.

A new color film, "Sandopan DTC," illustrating the application of a unique, crypto-anionic synthetic detergent in the latest types of textile mill dyeing and finishing equipment, has been released by **Sandoz, Inc.** The movie carries its audience through a 24-minute tour of six major textile mills and the pilot plant of the New Bedford School of Textiles. A sequence of special interest to textile printers and print fabric converters covers the operation of the latest in modern, automatic Swiss printing equipment, and other scenes demonstrate the use of the firm's surfactant in continuous boiling and bleaching processes, as well as other applications.

Sales engineer for **General Strapping Corp.** in North Carolina, South Carolina, and Georgia is Carl Wood, with headquarters at Box 844, Hartsville, S. C.

Smith, Drum & Co. has announced the election of the following officers: Harry S. Drum, chairman of the board; Robert N. Smith, president; Albert Bagian, vice-president; and William H. Gray, treasurer.

Tele-sonic Packaging Corp. has opened a branch office in Chicago for handling sales and servicing of its bag filling machines in the midwest territory. Gale A. Sherman has been named manager in charge of the new office which is located at 6930 North Clark Street.

Union Special Machine Co. announces the appointment of Merritt M. Ambrose as assistant to Larry M. Brown, manager of the company's

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SUPPLIERS News — WHAT THEY ARE DOING

product application department. Succeeding Mr. Ambrose is O. W. "Greg" Gregory now stationed in Greenville to cover the western portions of North and South Carolina. Virlyn R. Crisler, who has been serving as junior representative, has been appointed to cover the eastern portion of S. C., along with several counties in N. C. along the S. C. line east of Charlotte. John W. Jones succeeds R. W. "Bill" Bradberry in south-central territory. Succeeding Harry E. Pearson at San Antonio, is G. E. "Gene" Rogers.

Veeder-Root, Inc., has announced the establishment of a laboratory in Danvers, Mass., for the design and development of electronic controls counters, and instruments, under the direction of James W. Farmer, recently head of the electronics department of the Post Machinery Co.

J. F. Forster, as newly appointed executive vice-president of **Vickers Incorporated,** now has direct charge of all Vickers operations.

Raymond C. Firestone, formerly executive vice-president, has been named president of **The Firestone Tire & Rubber Co.,** succeeding Lee R. Jackson who has been elected to the new position of vice-chairman of the board. James E. Trainer is now executive vice-president.

The R. Michael Turner Co. of Clinton, S. C., is now representing the **H & P Spool & Bobbin Co.**

Rhoderick R. Blue of Warwick, R. I., has joined **Robinson Thread Co.** and the **Cranska Thread Co.** as a sales representative in New England. Mr. Blue was formerly a technical salesman with the Warwick Chemical Division of the Sun Chemical Corp.

Wayne Conway, formerly eastern district manager for **The American MonoRail Co.,** has been promoted to the post of sales manager, eastern division, with office at the Cleveland headquarters, 13107 Athens Avenue. Allen Reinart, who replaces Mr. Conway as district manager, is now assisted by Gori Pietropolo.

Newly promoted to eastern district sales manager for the silicone products department of **General Electric Co.** is George A. Darsie, with headquarters at 254 Elizabeth Ave., Newark, N. J. Mr. Darsie succeeds A. L. Baldock who has been promoted to sales manager for the recently established G-E insulating materials business at Schenectady, N. Y.

Charles A. Haynes, formerly northern sales manager, has been appointed works manager for **Howard Bros. Mfg. Co.,** following the resignation of Arnold W. Englund. E. Jack Lawrence has been appointed southern agent in addition to his duties as southern manager. All sales and service, as well as supervision of the branches in Atlanta and Gastonia, come under his guidance.

Two Goodyear Tire and Rubber Co. chemical division field offices, Boston and Cleveland, have moved to new quarters and are now operating from their new locations. The Boston office is now located at 66 B Street, Needham Heights 94, Mass. The new Cleveland location is in Goodyear's distribution center at 18901 Five Points Road, Brook Park, Ohio. Mailing address is P. O. Box 326, Berea, Ohio.

Roy D. Wiggins has been appointed to the research and development section of the textile division, **The Hilton-Davis Chemical Company.** He was formerly associated with the Kendall Co. and with the Rock Hill Printing & Finishing Co.

The Gillette Company has acquired Harris Research Laboratories, Inc. In addition to performing research for the parent organization, the laboratories will continue to serve other industrial clients under the same corporate name and with the same personnel.

A new rayon staple fiber plant of **American Enka Corp.** began operation in Lowland, Tenn., on February 18. Capacity of the new plant will be more than 50,000,000 pounds of staple fiber annually, for use in carpets, home furnishing fabrics, apparel, industrial fabrics, and other textiles.

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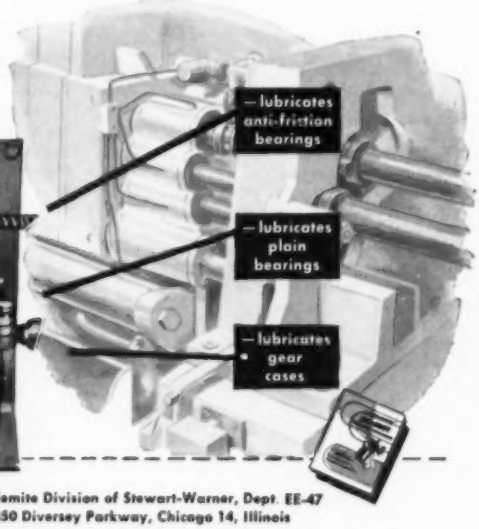

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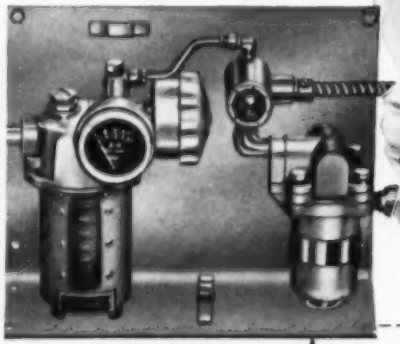

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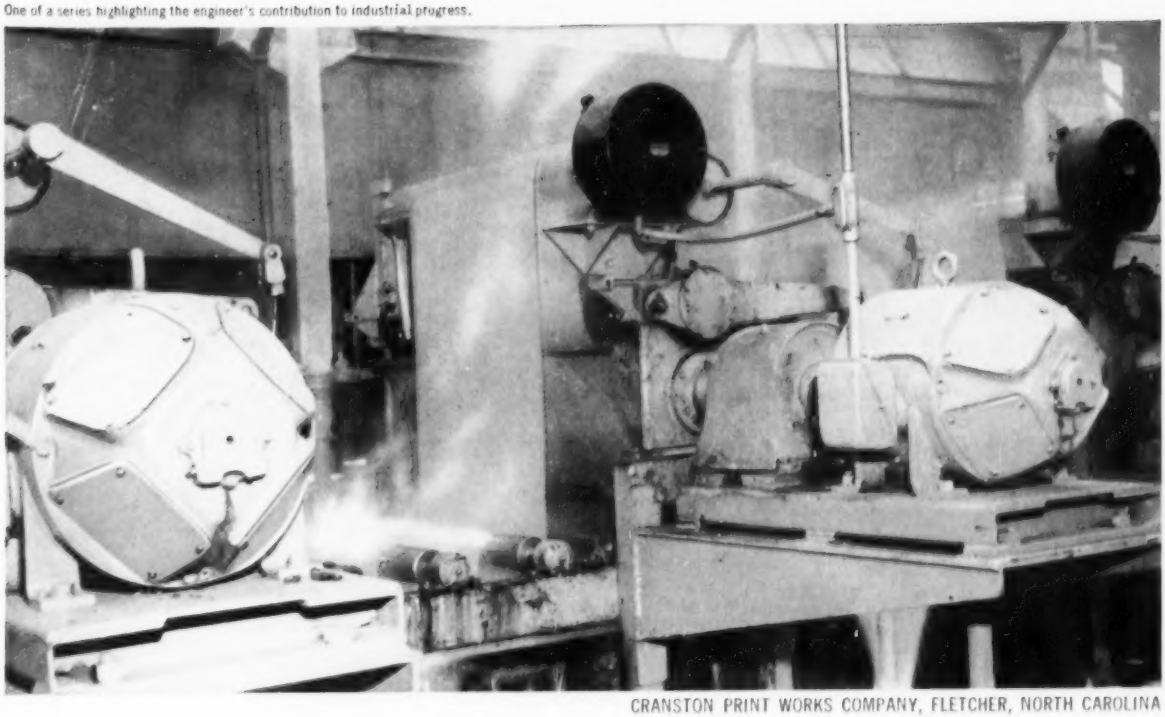

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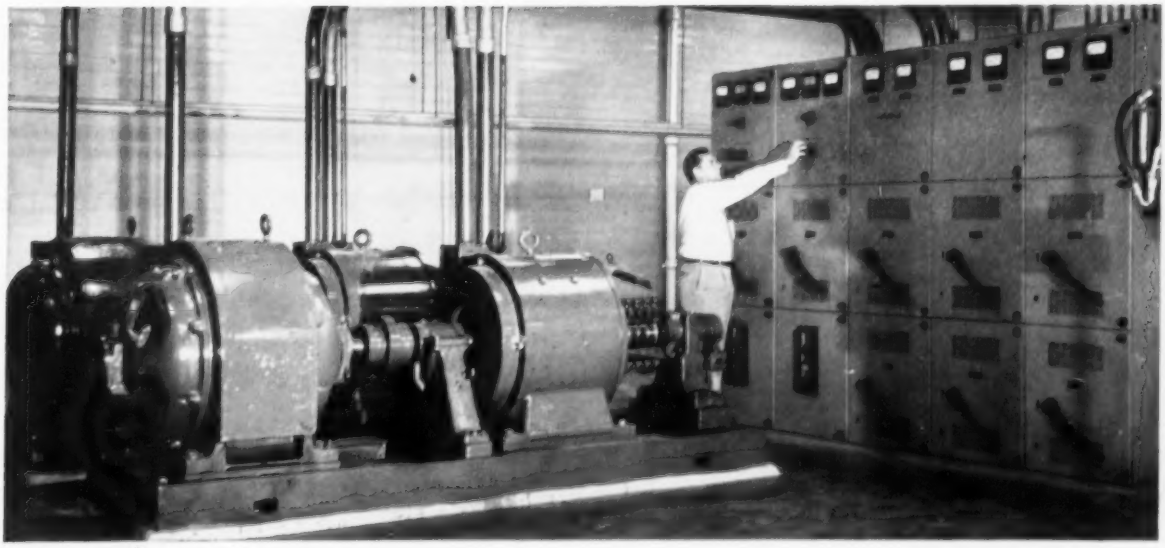

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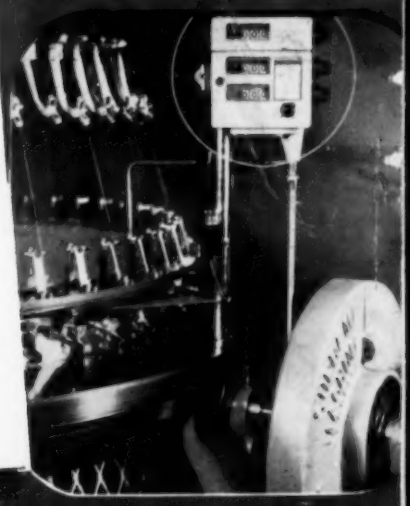
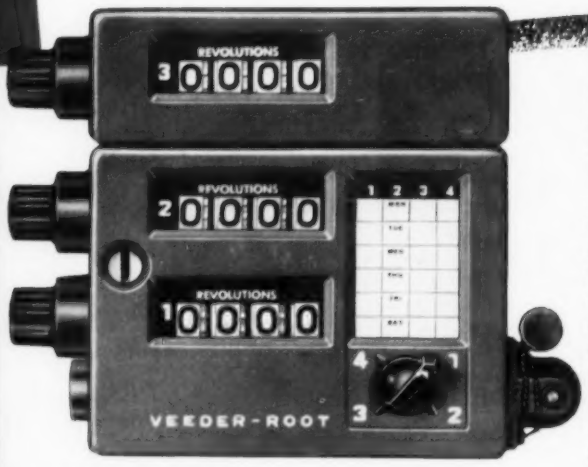


3-shift Revolution Counter on Supreme Knitting Machine.



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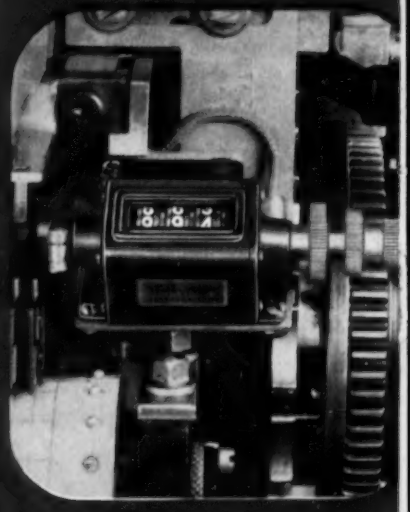
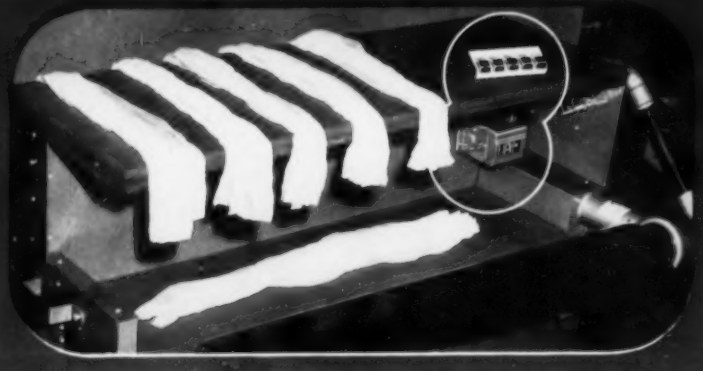


Small Subtractive Predetermining Counter on Philadelphia Jacquard Knitting Machine.



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